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THE

# RAILROAD RECORD:

AND

Journal of Commerce, Banking, Manufactures, and Statistics,

EDITED BY

E. D. MANSFIELD, ESQ.,  
W. WRIGHTSON AND T. WRIGHTSON.

VOL. III.

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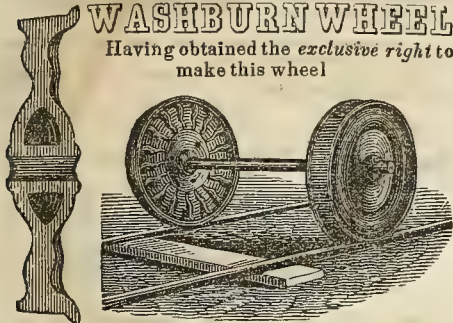






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Feb. 16th\* **JOSEPH DAVENPORT.**

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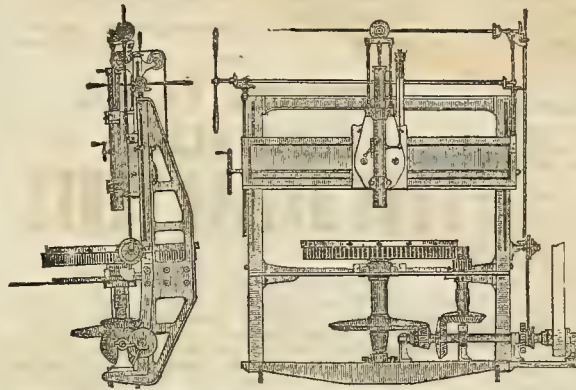
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By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other.

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of **ALBERT M. SMITH, Patentee and Manufacturer,** dec20-ly 13 North St. Paul st., Rochester, N. Y., or **TAULMAN & LOW, 157 Broadway, N. Y.**

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CIVIL ENGINEER,

**KNOXVILLE, TENN.,**

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THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

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READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENN'A R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Baucroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—DEAR SIR:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Baucroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRIKLAND KNEASS, Civil Engineer.

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STEAM GAUGES on a new principle, manufactured and sold by

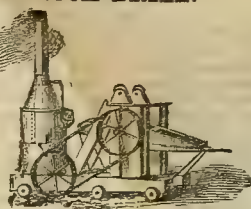
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Dec. 5, 1855.-ly

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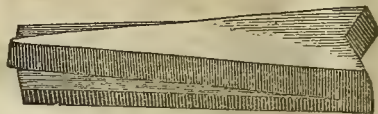
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

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THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

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The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

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N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

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# Railroad Record.

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CINCINNATI:

THURSDAY MORNING, .....MARCH 29 1855.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

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EUROPEAN AGENTS FOR THE RAILROAD RECORD.—Our European Agents are Messrs. Algar and Street, of the London Provincial and Colonial Newspaper Advertisement Office. Clements Lane, London, England.

NEW ADVERTISEMENTS.—Among the new advertisements of the week, our readers will find one of Messrs. Thos. Prosser & Son, of New York, agents for F. Krupp's Cast Steel. Among other articles manufactured from it, they advertise a cast steel gun to carry a ball of any weight.

CARDS OF RAILROADS.—Our readers will find the cards of several railroad companies on page 74 of the *Record*.

CINCINNATI HAMILTON AND DAYTON RAILROAD.

ANNUAL MEETING AND ELECTION OF OFFICERS.—The annual meeting of the stockholders of this road will take place in this city, on the 7th of next month. The stockholders and those interested in the result of the election, will find the time and place specified in the advertisement, in its proper column.

VOL. III.—No. 5.

## THE CONDITION AND PROSPECTS OF THE RAILWAY INTEREST—THE PANIC OVER.

Last Autumn and Summer, a hue and cry was got up against railways, and they were made to bear the burden of all the commercial sins of the community. The great mass of the community are, and always must be, ignorant of the intrinsic merits of complicated enterprises. They depend for information upon others, and most singularly and unfortunately, give just as much confidence to the bold assertions of those who know nothing, or are self-interested as to those who are the best informed, and the most upright. The consequence is, that when an outcry is made, the good and the bad are all involved together. No discrimination is made, and we see stocks sold for the same price, of which one is not worth half the other. The innocent purchasers are often the victims of ignorance and fraud, only because they will not exercise *their own common sense*. For example A. and B. stock jobbers, both offer certain stocks, and each affirms his stock to be the best; but in reality, one has not half the *intrinsic* merit of the other. Now, cannot C. know, if he pleases, that fact? Certainly. Let him examine the position and condition of the road for himself. If he wants to make a considerable investment, let him consult some one who is thoroughly acquainted with the statistics and resources of the country, and pay a fee for it, as to a lawyer. He has more at stake, and will find it a cheaper fee than any paid to lawyers.

But, to our point. The outcry against railways is about over. The tide is turning, and at this turn, we want to call the attention of our readers to some points of the case.

In the first place, we ask the readers of the *Record* to recall the positions we have assumed in the approach and crisis of the commercial storm, just going over.

1. The *Record* has uniformly maintained that there was *an abundance of money, especially coin, in the country*; and that consequently, in any commercial revolution which might occur, no greater calamity could occur, than the failure of those who were either insolvent or in doubtful circumstances, and the temporary restriction of credit within narrower limits. This was the substance of our position in regard to money and money pressure.

2. We maintained that so far as railways were concerned, they were *not* the causes of the pressure; and that in regard to the investments of money, railway stocks were the *best investments in the country*; and that the time was near, when this would be proved true.

Now, we appeal to the readers of the *Railroad Record*, to know if these positions are not substantially vindicated, by events? Has

any bank failed, which was not intrinsically insolvent? Is not the whole banking system on a firm, and safe basis? Was it ever more so? But it is a decisive fact, that there is *more money* (coin and paper), *in the country now proportionally, than there ever was before*. There has been, and could not be, any such revulsion as occurred in 1811–20 or 1837. The thing was improbable.

We come now to the condition and prospects of railways. What is their condition now, as compared with six months ago? In looking over the prices of railway stocks, we find that the value of railway property, in the money market, is now *full 20 per cent. better than it was at the lowest point*; although particular circumstances have depressed the value of stocks in some unfinished roads. But, let any one take the market values of some of the best finished lines, which is the true test and he will find that there is a very decided increase in the market value. In fact, things are on the rise.

Secondly, let us come now to *intrinsic values*. Take the winter's business of all the western railways, and it will be found that *four out of five have increased their nett receipts*. And under what circumstances has this been done? They have *increased their receipts in a year in which one-third of all the Western crops have been cut off*. It has been the severest trial, to which railways can be subjected. They never again will have such a trial. For what was it?

1. Loss of Crops.
2. Gigantic Railway Frauds.
3. A violent Commercial Revulsion.

Such a combination as this, against railway interests, will probably never again exist. It is an extraordinary combination.

In the midst of these fearful influences, railway property did, undoubtedly, greatly decline. That decline, we said then, and now repeat, was unreasonably below what it ought to have been. It is a great evidence not only of the *timidity*, but of the *want of sagacity* which generally prevails among monied men. This class are keen enough toward their own interests, and careful enough of their money; but in nine times out of ten, they either want sagacity, or their timidity holds them back. We will give several instances of what we mean.

The United States Government Stock (six per cent.,) is merchantable at 116. Consequently, the *intrinsic* value of money is  $5\frac{1}{4}$  per cent.

Now, let us turn to some transactions in stocks. A few months since the Little Miami Railroad Stock was sold at 80. For several years, it has divided ten per cent; but it has actually *made* from 11 to 15 per cent. for some six years past. At 80 then, this stock actually paid 14 per cent. Taking the actual value of money, as a test, and this stock



would pay off interest and principal in ten years, leaving the investment a clear gain!

Again, the other day certain monied men in New York subscribed \$1,000,000 for the bonds of the *Allon & Terre Haute R. R.* at 7 per cent., taking them at 75. The rate of interest, then, actually received will be  $9\frac{1}{2}$  per cent. Add to this 25 per cent. for twenty years loan, (which is  $1\frac{1}{4}$  per annum,) and it is  $10\frac{3}{4}$  per cent. Now, who doubts that a railway from St. Louis to Terre Haute is safe, and will pay its interest? No one. Well, then, what is the result? Why, before this loan becomes due, the holders of these bonds will have made the whole loan clear gain. In other words, they will be paid double!

Again, the Cincinnati and Marietta Railroad Company is issuing \$200,000 of domestic bonds, payable in seven years (1862) at 7 per cent., sold at 80. What is the result? The holders in 1862, will have received 69 per cent for seven years. Or in seven years only they will have back their capital to re-invest, with twenty-seven per cent. added to it, above the real use of money. Now, we affirm, that it is a better and a safer investment, than can be made (safely) in any commercial transactions. Companies like that, pay their interest promptly, and will return the money at the time.

With a constant increase of railway receipts; with a rate of investment which exceeds the profits of any other kind of business; with a country which creates that business even faster than the increase of railways, it is as plain and palpable, as the sun at noon, that railway investments will rise hereafter in the market, and all new works which are necessary to develop the resources of the country, will be constructed. No croaking; no timidity; no temporary revolutions; no slang of the ignorant, nor opposition of the malicious, can possibly prevent this result. The year 1855 will set things forward, and the year 1856 fully redeem all the errors of 1854.

#### TOLLING RAILROADS.

We cannot refrain giving our readers the following racy paragraph from the *Rochester American*. It is so good natured in its tone, that even the parties it is designed to hit, can not but laugh at its humorous vein:

"Mr. BLATCHFORD has made a long report in the Assembly, urging the imposition of canal tolls upon railroad freight. The present rulers of the State and their subordinate officials, have so peculated and plundered, as to beggar the treasury. Money is necessary, and must be had. The word, therefore, is "stand and deliver." Railroads, it is thought, have the largest purses, and the fewest pistols. Accordingly, the State foot pads select them for a financial experiment.

History informs us that in early times, the English Kings, when they found themselves "short," invariably levied contributions upon the Jews. There were reasons for this

course. The Israelites were the objects of popular prejudice; and known to be in funds. It was not only profitable but safe to rob them. So when the treasury ran low, the Jews were called upon to fill it. And they had neither choice nor remedy. What the King called for, Isaac must pay. Afterwards he would mayhap reimburse himself by usury, and thus, as is always the case, regal extortion eventually lighted upon the shoulders of the people.

The teachings of history have not been lost upon the "powers that be," in Albany. Railroads are the Jews of the present age, but there is no other change of programme."

#### RAILROAD STATISTICS OF MAINE.

The editor of the *State of Maine*, a paper published at Portland, Maine, has prepared a table showing the comparative doings of the railroads during the years 1850, 1853 and 1854. As this table contains some points of general interest, we extract the summing up of the whole:

1850.	
Number of Roads.....	8
Length in Miles.....	227
Cost in Dollars.....	7,129,692
Number of passengers.....	507,602
Receipts for do.....	412,501
"    Freight.....	154,010
Total Receipts.....	666,511

1853.	
Number of Roads.....	10
Length in Miles.....	404
Cost.....	12,681,878
Number of Passengers.....	919,106
Receipts for do.....	600,988
"    Freight.....	411,495
Other Receipts.....	52,235
Total Receipts.....	1,063,730

1854.	
Number of Roads.....	10
Length in Miles.....	404
Cost.....	13,759,988
Number of Passengers.....	1,066,352
Receipts for do.....	672,392
"    Freight.....	587,388
Other Receipts.....	41,617
Total.....	1,280,224

The earnings per mile in 1850 were nearly \$2,500; in 1853 over \$2,600, and in 1854 over \$3,100. It will be observed that the increase of earnings in 1854 over 1853, was five times the increase of 1853 over 1850, and that the whole of this increase was in the amount of passenger travel. This is probably due to the opening of the Canada lines, and the consequent through travel which passes over them.

The average earnings of railroads per mile, are probably about \$7,500 for well established roads, having their connections complete, and local business well developed. The earnings of the Indianapolis and Cincinnati Railroad for the first year of its operation, were over \$3,600 per mile. Our friends in Maine must, therefore, earn a little more during 1855, to reach the standard of profitable railroad operating.

IMPROVEMENT IN CLEVELAND.—We notice an advertisement for proposals for the excavation of the Ship Canal, and old river bed at Cleveland. The object being to give increased dock and harbor room. This looks like prosperity, and we are glad to see it.

## Communications.

#### OHIO AND MISSISSIPPI RAILROAD.

In his late article, the writer assumed that the southern connection of the above road, was yet to be quite as important, as its western, provided that connection was properly formed, but he denied that either of the roads referred to by the Committee, was the line to which the Ohio and Mississippi road, or the city of Cincinnati should look in forming that connection. It is not to be questioned that there is to be an immense railroad business done between the north and the south, in the valley of the Mississippi. Such is the character of the Ohio river, that it cannot be relied upon for navigable purposes, for a large portion of the year, and both travel and commerce are cut off in consequence. This state of things will not be permitted much longer. Railroads from the south are being built, and it is in the power of the friends of the Ohio and Mississippi railroad, to command a very large portion of this trade and travel and throw it upon Cincinnati. The distance from Cincinnati to Memphis, over the true route, is only 464 miles, or nineteen hours run at twenty-five miles to the hour, thus, from Cincinnati to the intersection of the Evansville, Indianapolis and Cleveland straight line railroad in Indiana, 170 miles; from the intersection to Evansville over that road 54 miles; from Evansville through Henderson and Smithland to Paducah 90 miles; from Paducah to Memphis 150 miles. The distance from Cincinnati to Memphis by the Cairo route, and river, is about 600 miles. Cairo can never be the important starting point for the travel coming up the Mississippi river on steamers, to take railroads for the north-east, as it is a day's run from Memphis to Cairo; the traveller that takes the cars at Memphis could arrive at Cincinnati before the boat could reach Cairo.—The construction of a railroad from Memphis to Paducah, crossing the Mobile and Ohio road, so as to connect Memphis and Cairo over that road by crossing at the mouth of the Ohio, could not obviate the difficulty of the position of the Illinois Central, as compared with the straight line from Memphis through Paducah, Smithland, Henderson, and Evansville to Cincinnati. The sole object of the writer was to bring this great southern connection of the Ohio and Mississippi railroad, distinctly before the friends of the road and of the city of Cincinnati and having done so, he refers them to the map, and takes leave of the subject, with his best wishes for the success of the Ohio and Mississippi road.

FRENCH BROAD RAILROAD.—The Asheville *News* entertains no doubt but that \$1,500,000 can be raised in the counties of Henderson, Buncombe and Madison, to aid in the construction of the above named road. It is proposed to hold a convention at Asheville early in the spring to consider the subject.



## Railroads.

### NEW CASTLE AND DANVILLE RAILROAD, INDIANA.

We have been favored with the printed exhibit of this Company, made in December, 1854, from which we make the following extracts:—

This road commences at New Castle, in the State of Indiana, and pursuing in general a westerly direction, terminates at Danville, in the State of Illinois. It traverses seven counties in Indiana, Henry, Madison, Hamilton, Boone, Montgomery, Fountain, Warren or Vermillion, as may hereafter be determined, and the county of Vermillion, in Illinois. It also takes in its route the county seats of these several counties, with the possible exception of Andersontown, in Madison county, and Covington, in Fountain county. Whether the line will intersect the Indianapolis and Bellefontaine Railroad, at Andersontown or Pendleton, and the Wabash river, at Covington or Perrysville, remains to be decided.

The territory which it traverses, lies between the Terre Haute and Richmond Railroad on the south, and the Wabash Valley Railroad on the north, varying in width from fifty-five to seventy miles. The line passes diagonally through this wide tract of country in almost a due west direction, meeting the Wabash Valley Railroad at Danville, in the State of Illinois. Competition on either side is forbidden, partly by the natural features of the country, but chiefly by the fact that the proposed line occupies the heart of this territory, and embraces its most valuable portions. This, in addition to the important terminal connections which the road commands, places it entirely beyond the reach of rival interests.

The counties above named are in general among the most populous and productive in the State of Indiana. With the exception of Warren, on the Covington route, and Vermillion, on the Perrysville, they all exceed the general average for the State.

Their average population is.....13,478  
The average for the 91 counties of the State is....10,861  
The excess of average population in these counties over the general average for the State, is.. 2,617

Collectively, they compose only one-thirtieth part of the territory of Indiana, but their aggregate population is nearly one-tenth part of the entire population of the State.

Results equally favorable are obtained from an examination of their capacity for production.

Amount of wheat and corn produced in Indiana in the year ending June 1st, 1850.....59,178,821 bushels.  
General average for the State, 91 counties..... 650,316 "  
Amount produced in the above seven counties, nearly..... 7,000,000 "  
Average to each county..... 1,000,000 "

From which it appears that the average of

wheat and corn in these seven counties exceeds the general average production in the State by about 350,000 bushels; and that their aggregate production constitutes between one-eighth and one-ninth the entire production of the State.

The road occupies the great lumber region of Indiana, most accessible to the prairies of Central Illinois.

The line is heavily timbered throughout its whole extent, especially in the vicinity of the Wabash river, on the borders of the Illinois prairies.

The forests of Indiana are the sources from which the demand from these prairies must be mainly supplied. Lumber in large quantities is now drawn in wagons, over bad roads, and at great expense, into the Central portion of Illinois; and with the present rapid increase of settlement of these tracts, caused by the opening of railroads, the demand is destined to grow vastly beyond the existing means of supply. The position of this road will probably secure to it a larger amount of lumber transportation than usually falls to the lot of our east and west roads.

At a point about eight miles east of the Wabash river, the road enters a region of immense mineral wealth—the vast coal fields of the Wabash valley and of the State of Illinois. The depth of this formation is one hundred and twenty-seven feet, embracing six coal seams, the lower members of sufficient thickness for easy mining, and in quantity inexhaustible. The lowest seam makes its first appearance at the surface of the ground, and in the bluffs of Coal Creek, about eight miles east of the Wabash river. Dipping toward the west, this seam is found in the valley of Coal Creek, but disappears below the Wabash, at a moderate depth, while the upper seams crop out in the ravines of the highlands between the two streams. On the west side of the Wabash the dip is reversed, and the higher beds come into view at Danville, Illinois, and everywhere in the precipitous banks of the Vermillion and its tributaries, where the three upper seams are united in one, the intermediate formations being absent, and form a bed of from five to seven feet in thickness.

A few miles east of the Wabash, the lowest and thickest beds of this mineral are perfectly accessible, and the mining may be conducted in these localities with less expense than at almost any other place where it has been attempted in the State of Indiana. It appears from explorations recently made by Dr. R. T. Brown, State Geologist, that the quantity of coal is inexhaustible, and that in quality some of the beds are superior to most other coals found in Indiana. In fact, the most valuable beds are those which lie lowest in the series, and these being generally too far below the surface to be worked to advan-

tage, it is at but few points in the State that this rich deposit can be reached.

This road strikes the coal fields at one of these points, nearly on a level with some of the most valuable beds, so that the mining can be carried on with great facility and at moderate cost.

These agricultural advantages, together with the mineral resources along the line, cannot fail to give this road a remunerative local traffic, and business which must increase with the increased density of population.

### McMINNVILLE AND MANCHESTER R. R.

This little road commencing at McMinnville, Warren County, Tenn., and running through Warren and Coffee Counties to Tullahoma, in Franklin Co., on the Nashville and Chattanooga Railroad, is thirty-four miles in length, and passes through a rich agricultural region, which has no other outlet; and hence, will naturally send its surplus agricultural products over this road to Nashville and Chattanooga.

The following were some of the agricultural products of Warren and Coffee Counties, according to the Census of 1850:

Products.	Warren.	Coffee.
Wheat.....	11,908.....	5,112 bushels.
Rye and Oats.....	90,277.....	72,558 "
Indian Corn.....	474,705.....	433,215 "
Butter and Cheese.....	81,432.....	47,327 lbs.
Neat Cattle.....	7,310.....	3,653 head.
Sheep.....	8,974.....	6,450 "
Swine.....	26,519.....	24,371 "

It is also stated in a former report of the president, that it is an ascertained geological fact, that extensive beds of coal and iron of superior quality exist in this region of country, and that for abundance of water power for propelling machinery and healthiness of climate, this region is unsurpassed.

The inhabitants of these counties and of the towns to be benefitted, may, therefore, amply afford to build the road. It will abundantly *repay* them in the course of a *very few* years in the increased value of their lands, and *doubly pay* them in the increased value of the products of their soil.

From the report of the president under date Jan. 25, 1855, we make the following extracts:

It appears from an examination of the Engineer's Report, that he now estimates the construction of the road, exclusive of laying down the track, equipping the road, or incidental expenses, at.....\$138,312 00  
To which add incidental expenses already incurred..... 16,605 00  
Collection and Atto's fees not yet carried to books..... 1,000 00  
Other incidental and contingent expenses during the current year..... 7,000 00

Making the sum of.....\$162,917 00  
Assuming that the cost of the Iron, laying down the track and equipments of the road should equal the engineer's estimate of... 340,000 00

And we have a total cost of.....\$502,917 00 to put the road in running condition.

#### MEANS OF THE COMPANY.

Stock subscribed by Warren County.....\$ 60,000 00  
Stock subscribed by Coffee County..... 21,000 00  
Stock subscribed by individuals..... 62,425 00  
Additional Stock taken by Contractors..... 13,682 00  
Bonds of Tennessee..... 340,000 00

Total.....\$497,107 00  
And we have a total cost of..... 502,917 00

Showing a deficit of.....\$ 5,810 00



In the means of the company, besides any losses which may occur in the collection of stock, which must be provided for.

I have indulged the expectation that the Nashville and Chattanooga Railroad Company would subscribe stock to the amount of 8 or 10,000 dollars to be paid in the freights of our iron.

The corporation of Nashville is another source from which we have a right to expect assistance, say to the extent of \$10,000.—The amount is so small compared with the benefits which would result to her business and trade, by offering increased facilities to eight or ten counties for its transaction, that it is hardly to be doubted that the subscription will be made.

It will be perceived from the Engineer's Report, that of the graduation there is unfinished.....\$15,783 07  
On the Freestone work and drains.....5,207 79  
Cross ties to be delivered.....12,097 75

Showing only an expenditure of.....\$33,087 61

To prepare thirty-two miles of the road, ready for the iron. While upon the other two miles there has been expended \$33,295 37 for grading and bridge masonry, and now that the work is so nearly done and no new features to be developed in the character of the material from the excavations, the estimate may be relied upon with confidence.

With this view of the condition of the affairs of our Company, I regard it as certain that with the aid which we expect from the city of Nashville, and the Nashville and Chattanooga Railroad Company, we will be able to put the road in operation during the present year; let us then not hesitate nor relax our energies, and success will crown our efforts.

The McMinnville enterprise in some strictures upon the management of the company, censures the course of the directory in not purchasing iron last summer, according to the resolution then adopted, and claims that the State Bonds to be given for this purpose would then have commanded a premium of 8 to 10 per cent. This premium could have applied to the construction of the road bed and would have aided materially in imparting and sustaining confidence. We do not see the justice of the strictures of the *Enterprise*, inasmuch as iron can now be purchased at a rate proportionally much less than the decrease in the market value of the bonds; and hence, the company save by the delay. We cannot, therefore, censure them, as it behoves every company to save all it can; money is sufficiently difficult to obtain, and we can but commend the course of those who take means to save it.

**CENTRAL OHIO R. R.**—At the meeting of the Board of Directors of the C. O. R. R. Co., held in this city yesterday, W. GALIGHER resigned his place as a Director of the Company, and GEORGE JAMES, Esq., was appointed to fill the vacancy thus occasioned.—*Zanesville Courier*.

#### CENTRAL OHIO RAILROAD.

The difficulty between this road and the city of Wheeling, is, we regret to learn, in no fair way for adjustment, at least in an amicable way. The city of Wheeling will be satisfied with nothing less than the full accomplishment of its demands, in short they require every passenger and every ton of freight to pass through Wheeling. The company, on the contrary, wish to compete with other lines favorably as to *cost* and *time*, and in prosecution of this object, they wish to take through passengers and freight over the Ohio a few miles below Wheeling, and thus save several miles of travel to those who have no particular desire to go to Wheeling. A proposition was made a short time ago on the part of the Baltimore and Ohio, and the Central Ohio railroads, to the city of Wheeling, with reference to the amicable settlement of the difficulty. As it was published in the Record at the time, we do not repeat it.

A meeting of the Board of Directors of the Central Ohio railroad company, held on the 23d of March, at which a copy of the proposition of the Presidents of the Baltimore and Ohio and Central Ohio railroads, to the city of Wheeling for the construction of a bridge across the Ohio river, and also, the correspondence of the Chairman of the Wheeling Committee with the Presidents of the two roads, and the withdrawal of the proposition on the part of the Central Ohio railroad, was presented, and after consideration, the following preamble, resolution and orders were unanimously adopted:

"WHEREAS, This Company, since the opening of the Road to the Ohio river, have uniformly furnished every facility in their power for the transmission of freight and passengers to and from Wheeling, and that notwithstanding this policy the said city is now endeavoring to enforce the injunction lately granted against the Baltimore and Ohio railroad company, which injunction is understood to be, and was intended to be, practically operative against this company, quite as much as against the said Baltimore and Ohio railroad company, and is an odious effort to force the trade and travel, which that city has not created or aided in developing, from its shortest and least expensive route—therefore be it

"Resolved, That the action of the President in making the proposition to the city of Wheeling upon the subject of a bridge crossing the Ohio river, and also the withdrawal of said proposition, be and the same is hereby approved.

"Ordered, That the Ex-Committee be authorized to employ special counsel to take such proceedings as the Constitution and Laws of the United States shall justify, to protect this company from the injurious results of the hostility of the city of Wheeling.

"Ordered, That the President be authorized to inquire and report at the next meeting of the Board what amount of available Stock subscription can be obtained for the construction of a branch of this road to a point opposite Moundville, in Marshall county, Virginia.

"Ordered, That the Superintendent be authorized to have the Boat in the employ of the Company on the Ohio river, extend its trips, in connection with one of the passenger trains, to Moundville, in Virginia.

"Ordered, That the Superintendent be authorized on consultation with the Ex-Committee, to establish rates of passengers (on the round trip ticket) from any points on the road east of and inclusive of Millwood to Zanesville and return, as low as from any of such points to Wheeling and return, and also that for parties availing themselves of such arrangement, the freights be equalized correspondingly."

#### DETROIT AND TOLEDO RAILROAD.

We notice in the Toledo papers of recent date, mention of an organization made in earnest for the construction of this railroad. As forming a portion of a great through line from the great lakes to the Gulf of Mexico, we regard it as an important project. The following gentlemen have been appointed Directors:

*Directors for Detroit*.—S. Conant, Z. Chandler, H. P. Baldwin, H. Ledyard.

*Trenton*.—G. B. Slocum.

*Monroe*.—W. W. Clark, J. W. Sterling, W. H. Boyd.

*Toledo*.—A. J. Field, C. W. Hill, M. R. Waite.

*Commissioners*.—L. B. Mizner, J. W. Tillman, Detroit; D. A. Noble, G. W. Strong, Monroe; A. J. Field, Toledo.

W. H. Butler, Secretary and Treasurer.

#### CINCINNATI, LOGANSPOUT, AND CHICAGO RAILROAD.

The people of Logansport are awake to their interests in regard to this road, and they may well afford to spend liberally to complete it to their city. The *Pharos* of last week, says a railroad meeting was held on Saturday night, in the Court House, to devise "ways and means" to release the iron for the railroad from here to Kokomo from the custody of Forwarding Merchants in Toledo. Col. Pollard was called to the chair, and Dr. Lytle appointed Secretary.

Wm. Son. Wright addressed the meeting, and showed the necessity for action *now*—and the danger of delay.

Messrs. Cullen and Bringhurst also addressed the meeting.

Committees were appointed to canvass each Ward to secure the necessary subscriptions of money to meet the present wants of the company:

*Ward 1*—D. B. COULSON, JNO. LYTLE.

" 2—W. J. CULLEN, W. W. HANEY.

" 3—W. WILSON, S. A. HALL.

" 4—J. W. DUNN, G. M. JEROLOMAN.

" 5—D. JOHNSON, T. S. DUNN.

" 6—SAM'L. McELHENY, T. H. BRINGHURST.

*West Logan*.—J. C. THOMPSON, S. GRUBB.

The meeting adjourned to meet Tuesday



night, at the same place, to hear the report of the committees. On last evening the several committees reported and were continued. The following persons were added to the committee, for subscriptions throughout the county:—B. E. Taylor and W. K. McElheney.

The meeting adjourned to meet on Saturday night at the Court House.

The time has come for prompt action on the part of our citizens."

The *Pharos* has hit the mark here. It is prompt, decided action on the part of the people on the line, that is required in this enterprise; let those people act promptly, energetically, and liberally, and this road so important to their interests, will be carried triumphantly through its difficulties, to an early completion.

Mr. Poor, editor of the *American Railroad Journal*, is out in the most malignant articles against the Ohio and Mississippi, and the Evansville, Indianapolis and Cleveland Straight Line Railroads. He is most decidedly opposed to those roads, of course that ends the matter, and the roads will be given up; truly "the ox knoweth his owner, and the ass his masters Crib."

#### PITTSBURG, MAYSVILLE AND CINCINNATI RAILROAD.

We publish to-day, a short extract from the *Zanesville Aurora*, showing the progress of this important work:

"Twenty-five miles of the road are ready for the rails, from Cumberland to Washington. There are also some six or seven sections completed between McConnellsville and Cumberland. Large forces are constantly employed on the tunnels. Twenty-five thousand dollars per month have been paid for the last six months, by the company to the contractors. T. E. Pevery, Esq., the chief engineer of the road, assisted by a competent corps, is now engaged in locating the line some fifteen miles north of Washington, and this portion, which is already under contract, will be commenced immediately."

The policy of the directors of this company has been just reverse of that acted upon by many enterprises. Instead of the plan of getting what stock-subscriptions they could from the intelligent and public spirited farmers on the route, and then borrowing two or three times the amount on bonded securities, at high rates of interest, they have undertaken the task of forming a high toned public opinion, among those, whose lands and property are to reap advantage from the road, and of building the road from the resources of its own region. The advantages of such a plan cannot be over-estimated; a road built and equipped in this manner, stands before the world in a far different aspect from one which enters upon its existence burdened and weighed down with debt. Its stockholders may reasonably expect to reap direct and immediate advantage from their investment.

#### FLORIDA CENTRAL RAILROAD.

We publish to-day, says the *Charleston Standard* of the 7th inst., a communication from an intelligent gentleman of Florida, in relation to the feasibility and advantage of the Florida Central Railroad, which now attracts considerable attention in this State. At the last session of the Florida Legislature, an internal improvement bill was passed, which granted to certain roads in contemplation a large portion of the lands of the State contiguous thereto, and the credit of the State upon the internal improvement fund to the extent of ten thousand dollars per mile, when ready for the iron. Among these the most prominent are the Florida Railroad, proposed to be constructed from Fernandina to Cedar Keys upon the Gulf, and the Florida Central Railroad, commencing at Jacksonville, near the mouth of the St. John's, extending through the counties of Madison and Jefferson, and through Tallahassee, Quincy, on to Pensacola. These roads will concentrate at or near the mouth of the St. John's River, the products of the richest portions of Florida, and in all reasonable probability, the products of the whole Gulf coast, which are designed for the markets of the north of Europe. Of the commercial advantages to communities on our Southern seaboard, to result from their construction, there can be no doubt; and among these none will participate to a greater extent than the commercial community of Charleston. The Central Railroad, extending to the Apalachicola River, will doubtless bring the products of the St. Mark's and Apalachicola districts which now export, the one from 30,000 to 40,000, and the other about 150,000 bales of cotton, and in exchange will take from our markets the supplies necessary to this extended region, which can scarcely amount to less than \$5,000,000 worth.

There is no certainty that these roads will be constructed soon. Men of great energy and intelligence conduct them; but they are disproportioned to the ability of so sparse a population, and are almost disproportioned to their wants. They are works which quite as much concern the sections of our country beyond the limits of that State, and the efforts which we understand will soon be made to procure assistance from other mercantile communities may be made with great propriety.

**LEXINGTON AND BIG SANDY RAILROAD.**—The *Mt. Sterling Whig* gives a favorable account of the progress of the work on this road.

The chief engineer is now in Pennsylvania negotiating for 4,100 tons of rails. On about ten miles from Ashland, the grading will be ready for the superstructure within three months, and from Lexington to Mt. Sterling, 33 miles, within the year. The heaviest work between these two points is nearly completed.

The President of the company, R. Apperson, Esq., is entitled to high praise for the skill and energy he has displayed in prosecuting the work under so many disadvantageous circumstances.

**RAILWAY TRAFFIC IN ENGLAND.**—The railway traffic in England, as in this country, shows a large falling off. For the week ending February 23d, the figures show the following aggregate result:

	Rec'ts.	Miles open.	Av'ge per mile.
1855.....	£216,595	46,064	£46 8 10
1854.....	236,252	45,254	52 4 1

#### COLUMBUS AND XENIA RAILROAD.

The receipts and expenditures of the Columbus and Xenia Railroad Company, during the past fiscal year, have been as follows:

RECEIPTS.	
From Passengers.....	\$163,052 39
From Freight and Mail.....	177,553 69
From extra baggage.....	175, 39
Total gross receipts.....	\$340,781 37
EXPENSES OF WORKING.	
For repairs of road, bridges, depots, etc., etc.....	\$28,042 37
For repairs of rolling stock.....	37,602 70
For fuel, oil and tallow.....	32,794 01
For all other expenses, including salaries, wages, stations, etc.....	73,393 00
Total expenses.....	171,832 08
Net earnings.....	\$168,949 29

As compared with the business of the previous year, the receipts show an increase of \$26,347 31.

#### Rock River Valley Union Railroad.

We understand there is every prospect now that the above road will be completed at an early day. At the last election of directors an entirely new board was chosen, consisting of gentlemen of energy and of almost unbounded influence in moneyed circles both in this country and in Europe. The new board determined at once to place the interests of the road upon a new and satisfactory basis, and to that end circulars were addressed to the foreign bondholders containing propositions, the acceptance of which, would secure the completion of the road. The results of this and other movements towards the same end is, that the road and its franchise, will be sold to day, and will doubtless be bid in by the bond and stockholders, the bonds be converted into stock, new stock be subscribed, new mortgage bonds issued, and the work be pushed forward energetically to completion.

To combine a greater interest and also to add to the actual value of the stock in this road, a bill was passed at the last session of the Illinois Legislature for consolidating the Illinois and Wisconsin Railroad Company with that of the Rock River Valley Union. A similar bill has also, we believe, passed the Wisconsin Legislature. About 35 miles of the Illinois and Wisconsin road, and 18 miles of the Rock River Valley Union road are completed and in daily use. The consolidation will be mutually advantageous to the two roads, and will affect favorably the interests of all classes at their termini, and along their lines.

The completion of these two roads will hasten the settlement and development of the Northwest, and add greatly to the commerce of our city. The valley of Rock River is the garden of Wisconsin. A railroad sweeping through it from Lake Winnebago to the southern bend of Lake Michigan, there connecting with the great Eastern and Western lines of travel, cannot fail of paying most tempting dividends upon its cost. We doubt whether any road in the Chicago system will pay better, and certainly but few of them can hope to pay as well.—*Dem. Press.*

**MOBILE AND OHIO RAILROAD.**—The new Board of Directors of this road, just elected by the stockholders, as we learn from the *Abbeville Democrat*, consists of the following persons: James Whitfield, Miss.; Milton Brown, Tenn.; Sidney Smith, Mobile; F. B. Clarke, Duke W. Goodman, R. Lee Fearn, David Stodder, Moses Waring, Charles Walsh, Charles Gascoigne, J. J. Walker, William J. Ledyard, W. W. Roby, Mississippi.



## Miscellaneous and Mechanical.

### CINCINNATI AS A POINT FOR THE MANUFACTURE OF LOCOMOTIVES.

The manufacture of locomotive engines as a propelling power on railways, has, of late years, been one of the most important branches of art pursued in our country. In a recent article on this subject, we estimated that there were about 6,000 of these engines in present use in the United States, and that there would be required, to supply the demand of the coming year, at least 1,680 new locomotives. The cost of these engines, at an average price of \$9,000 each, would be \$15,120,000; and it would require at least 6,720 men to be employed in their manufacture.—We refer to these statistics merely to show the part Cincinnati does and should take in this tremendous business. And in connection with this, we have been at the pains to procure some of the statistics of the manufactory of Messrs. Niles & Co., of this city. During the year ending November 11th, 1854, this establishment turned out 40 first class locomotives, which are now to be found whizzing up and down with lightning speed, on the Ohio and Mississippi, the Evansville and Crawfordsville, the Cincinnati, Hamilton and Dayton, the Little Miami, the Peru and Indianapolis, the Milwaukie and Watertown, the Ohio and Pennsylvania, and other roads in this and neighboring states and at the south. They are now building some *up-hill* engines, of G. E. Seller's patent, to go to Pennsylvania.—To do this amount of work during the year, they employed, on an average, 220 men, at an expense of from \$1,800 to \$2,000 per week for wages, amounting, in the aggregate, to about \$100,000 paid to the working classes. Assuming, as in our preceding article, that the average cost of a locomotive is \$9,000, there will then be left \$260,000 to be employed in the purchase of material, the wear and tear of machinery, rents, insurance, profits, etc. Of the importance of this branch of manufacture, the business as well as the working classes may judge.

But what part ought Cincinnati to take in the manufacture of locomotives? There are in the United States, about 18,000 miles of railroad, in operation, requiring 6,000 locomotives, for the transaction of their business.—Of this amount, there are in Ohio, 2,344 miles, requiring 781 locomotives, of which there must be built during the coming year, about 210 locomotives. We ought, then, to have in Ohio, at least *five* establishments of the capacity of that of Messrs. Niles & Co., and nowhere can those establishments be located better than in Cincinnati.

But we hear much said of the extent of the manufactories, and the durability of workmanship of the eastern shops. Let us compare notes.

There were probably built during the past year, about four-fifths as many locomotives as will be required during the coming year, that being about the proportion of miles in operation. Assuming that there were built in 1854, 1,300 locomotives, by 41 different manufactories, the average of each shop would be 31 engines. The Cincinnati establishment has therefore, turned out about one third more engines than the average. What now is the experience of wear, where these engines are used.

From the report of the Little Miami Railroad Company for 1854, we find that the average cost of repairs for the locomotives, was \$1,400. The Griffin Taylor, an engine built by Niles & Co., ran during the year 22,794 miles at a cost in general repairs of \$367.47. So far then, as general cost for repairs is concerned, Cincinnati locomotives compare favorably with those of eastern manufacture.

We come now, to consider the last and most interesting question, so far as Cincinnati is concerned. What profit would it be to her, if all the locomotives were made here, which legitimately belong to her circle of trade? We have already seen that Cincinnati ought to make 210 locomotives during the coming year, to supply Ohio alone. The making of 210 locomotives would furnish employment for over 1,150 workmen, at an average of \$9 per week, or in other words, a subsistence for 1,150 families composed of 5,750 persons, and would spread among these \$10,350 per week, to be expended in our stores in the purchase of the various articles necessary for food and clothing.

#### A NEW BOILER.

Under the above caption we find in the *Scientific American*, a description of what is termed a new form of boiler. The Editor says:

"A new form of boiler has recently been tried in its application to locomotives, in England, with great economy in fuel, and time—it is said—in getting up steam. The improvement consists in piercing the sides and top of the fire-box, and the crown plate of the boiler flue with a number of holes about three inches in diameter, into each of which, projecting into the water space, is rivetted a malleable cast iron cup, from four to six inches deep, those on the sides being cylindrical, while those on the crown plate are spherical. These cups are, of course, covered in every direction by the water in the boiler, and the inside being exposed to the heat of the fire and concentrating the temperature, presents so much additional heating surface, that the boiler is enabled to get up steam in a vast deal less time, with a diminished quantity of fuel. Several stationary horizontal boilers of this description, have been in use in London for the past twelve months with success, which, being worked by gas coke, have avoided the smoke nuisance."

Many experiments have been made in different places to so improve the form of boiler

as to reduce the amount of fuel, and the time necessary to generate the steam. We had in use for several years in our office, a boiler manufactured in Albany, N. Y., which differed from that described only in the fact that the *cups* instead of projecting *up into the water*, projected *down into the fire-box*, and hence contained the water, and were subjected to the influence of the direct blaze, a matter of some importance, as it is the direct contact of the current of heated air and gases, rather than the radiated heat which generates steam with rapidity. A model of a similar boiler was also made fifteen years ago, by Mr. Soorles, of the Merchants and Manufacturers Insurance Co., of this city. We should think that it may admit of doubt whether the *new form* of boiler used in England, possesses any advantage over the ordinary locomotive boiler.

#### CAST STEEL THE STRONGEST MATERIAL FOR GUNS.

Our previous articles under this head have called attention in this direction. We are glad to see that it is so, for we think it an important subject if the same strength can be obtained with a much diminished weight, it is plain that a great practical advantage is gained on the battle field—an advantage which favors celerity of movement, and rapidity of execution. We subjoin a communication on this subject from Messrs. Thos. Prosser & Son of New York. Our correspondent may well call the idea of moulding in shape a strange one. Yet such is the fact; we have not seen it tried with guns, but know that it is done with frog points and saw mandrils, and other articles expensive to forge, and that the process is patented by a firm in this city.

NEW YORK, March 31st, 1855.

EDITOR R. R. RECORD:

Dear Sir:—In your number for Mar. 15th, article "Cast steel the strongest material for guns," you appear to have overlooked the fact of our offer "to supply a perfect *Cast Steel Gun* to carry a ball of any weight." The three pounder which we alluded to, weighed but 229 lbs., and even that took the charge of a 42 pounder to burst it. We are prepared to take an order for Mr. Krupp, for a gun of more than fifty times that weight. Mr. Mushet's proposition to the Sheffield Steel manufacturers I consider as a mere banter, for he knows perfectly well that the thing is entirely impracticable with steel of the peculiar quality manufactured there. Mr. Mushet's steel is a different article altogether, and is made from the Forest of Dean iron ore, without any admixture of Swedish, as I am informed. I do not know whether it is converted or not, but presume it is made without cementation in the Sheffield way.

Mr. Krupp's steel is not converted on the Sheffield plan, and admits of any size required



for a gun or a shaft, limited only by the power of the machinery to manufacture it. As to casting it "in shape," &c., the idea is a very strange one, for cast steel is but first rate cast iron when in the ingot, and requires to be hammered three or four times, or perhaps more, to "put the nature" into it.

In fact cast steel of this quality, without hammering, and to a most incredible extent, would be quite useless for the purposes to which it is applied.

Very respectfully,

THOS. PROSSER & SON.

**NEW MUSIC.**—Our acknowledgments are due to Mr. Horace Waters, an extensive publisher of Music, and manufacturer and dealer in Piano Fortes, No. 333, Broadway New York, for the following sheets of popular music, published by him. Any one enclosing to Mr. Waters one dollar, will receive the sheets by mail, post-paid.

**SPARKLING POLKA.**—A very pretty polka by Thomas Baker.

**LILLY WHITE, Schottisch.**—Arranged from the air of the Lilly White song, as sung by the Buckleys, by James Bellak.

**'TIS OUR CHILD IN HEAVEN.**—A beautiful production by I. B. Woodbury.

**OUR BOYS.**—A song of the genuine "Young America" school. Words by C. D. Stuart; Music by Thomas Baker. We copy one of the verses of "Our Boys," as expressive of the style and sentiment:

"OUR YANKEE BOYS! the world is wide,  
And search it as you will,  
Our Yankee Boys the noblest are,  
And best and bravest still;  
The truest and the gallantest,  
For knowledge, fun or fray,  
And wide awake to beat the world,  
Whate'er the world may say.  
Our Yankee Boys, &c.

It is not often that we receive anything outside of what belongs to railroads and statistics, and when we took from the post office the neatly sealed packet and found it contained music, what do you think we, that is the bachelor editor, did with it? Took it it home—no, we had no friend at our sanctum to sing and play. Why, we put on our best natured looks, if crusty old bachelors ever can look good-natured, and took it to a *friend*, a lady friend we mean, and begged that she would practise it, that we might hear her sing *our music*.

#### CAUSTIC LIME IN BLAST FURNACES.

BY WILLIAM TRURAN, ESQ.

Caustic lime is now partially employed at several works in Wales, and other iron making districts of Europe, as a substitute for the raw limestone commonly used as a flux in blast furnaces. Although the advantages which are found to attend its application have not fully realized the sanguine expectations of furnace proprietors, they have sufficed to show, that its application is attended with some important results to the metal produced from the blast furnace.

The motive which induced iron masters to try the effects of burnt lime as a flux, appear

to have been a desire to augment the production of metal from the blast furnace, conjointly with a diminution of the expenses attendant on the smelting operation. This, it was confidently anticipated, would follow on the substitution of lime, for the carbonate of lime hitherto used. Calculations based on the composition of the gases at different altitudes in the furnace, pointed out the carbonate of lime as exercising a prejudicial effect on the working of the furnace. It was believed that the absorption of caloric by the carbonic acid of the limestone in its passage from the solid to the gaseous state in the blast furnace, would no longer take place, and that the reduction in the furnace fuel would more than compensate for that used in the lime kiln.

It was also believed, that by calcining the limestone previous to its introduction into the blast furnace, the cooling influence which is occasioned in the upper regions of the furnace by its introduction in the raw state would be avoided, and as this increase of temperature over that usually obtained would be equivalent to an increase in the altitude of the furnace, a corresponding augmentation of the usual weekly make of the furnace would result from the altered mode of filling the lime.

Theoretically, a considerable saving is effected by the use of caustic lime, but practically, there is little or none. At works where limestone is filled into the furnace without having been broken into suitable lumps, the reduction in the consumption of the limestone and fuel by the use of caustic lime may be considerable, but where it has been usual to break the limestone into pieces, not weighing more than a few ounces, the diminution is almost inappreciable. Large masses of limestone require a correspondingly longer time for their complete calcination, and while this is being effected, they descend into the furnace along with the ore and fuel, until they have absorbed from the latter the caloric necessary for their complete decomposition. The depth at which this is effected, will depend on the size of the stones used. The larger these are when filled, the deeper will they descend into the furnace before complete decomposition. In those furnaces which are supplied with finely broken limestone, the lumps, from their small bulk, quickly absorb the requisite caloric, and are afterwards in their further descent distributed through the burning materials. The caloric which they absorb during their conversion, is collectively the same as that absorbed by the coarsely broken limestone, but with this difference, that it is absorbed in the upper regions of the furnace; where, if the furnace has been fed with raw bituminous coal, as fuel, the heat is at all times sufficient for the purpose, and can be spared without sensibly impairing the efficiency of the furnace. The calcination or decomposition of the limestone is effected by a certain determinate quantity of fuel, and this will be the same, whether the operation be conducted in the mouth of the blast furnace, or in an independent furnace, so long as it be accomplished before the materials in the furnace have reached the region of the boshes.

At Merthyr Tydfil, the first experimental application of caustic lime was made in a blast furnace, 50 feet high, and 18 feet in its largest diameter. The charge before alteration averaged about 18 cwt. of calcined clay ironstone, 18 cwt. of forge cinders, and 9.5 cwt. of coarsely broken limestone to the ton of coal consumed. With this burden, the

make for a period of six months preceding the experiment, averaged 108 tons of forge pig iron weekly. The burden was altered to 18 cwt. of calcined clay ironstone, 18 cwt. of forge cinders, and 6 cwt. of burnt lime to each ton of coal, when the weekly make for the first three months of the experiment averaged 114 tons.

From this experiment it would appear that the application of burnt instead of raw limestone, was attended with an augmentation of the weekly make of iron equal to five per cent. on the make for the preceding six months. On going further back, however, it was found that the average weekly make of the furnace for the preceding three years, was 116 tons. It is, therefore, questionable if the augmentation was solely the effect of the calcination of the limestone.

But, although the augmentation in the make may have resulted from other causes than the use of burnt lime, there appears no reason for doubting its connexion with an improvement observed in the quality of the iron produced. This was decidedly superior to the iron previously made, where softness and ductility were required. Its conversion, however, into refined metal, required more than the usual blowing, and its refractory disposition, was still further manifested in the puddling forge, where its conversion into puddled iron was attended with some difficulty.

The consumption of fuel in the blast furnace with the limestone flux, amounted to 38 cwt. on the ton of pig metal produced; with burnt lime it was 36.5 cwt. to the ton, showing a difference of about 4 per cent. in favor of the burnt lime. But, owing to the extra blowing in the refinery and the difficulties encountered in the puddling forge, the additional fuel consumed in these operations, amounting to 3.5 cwt. on the ton of puddled iron, leaves a balance of 2 cwt. in favor of the limestone flux.—*Jour. Franklin Ins.*

**MISSOURI RIVER AND PLATTE VALLEY R. R.**—A bill to incorporate the Missouri River and Platte Valley Railroad Company, was recently passed by the Legislature of Nebraska. The capital stock is to be \$5,000,000, and there is to be a double track. The road is to begin at the town of Plattsmouth, on the Missouri river, and run to Fort Kearney, thence to Fort Laramie, thence to the western limits of Nebraska, upon the most eligible route, with a branch road from the mouth of the Nemaha, to unite with the main track at Grand Island, near Fort Kearney.

**ALTON EXTENSION OF BELLEVILLE RAILROAD.**—The Belleville *Advocate* speaks encouragingly of the Alton extension of the Belleville road. The grading is all finished, the track is ready for the iron, and the whole will be completed in less than three months. The same paper says that the prospect is cheering that the work on the Murphysboro and Belleville road will be commenced at an early day. It will be undertaken by a company whose energetic character is a guarantee that it will be hurried through to a speedy completion.—*Dem. Press.*

**NEW STEAM FIRE ENGINE.**—A new Steam Fire Engine on the plan of Shawk's patent, was tried in Cincinnati, last week. A committee of gentlemen well competent to judge, were on the ground, and have reported favorably on its performance.



TABLE OF RAILROAD BONDS, WITH MARKET VALUE.

CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT.	DUE.	OFF'D.	ASK'D.
Alabama and Tennessee	1st mortgage, convertible till 1872	7	1872		90
Baltimore and Ohio	Transferable. Taxed	6	1885		79½
Do do	Coupons. Not Taxed	6	1875		
Do do	"	6	1880		
Do do	"	7	1860		
Do do	"	6	1885		
Bellefontaine and Indiana	1st mortgage, convertible	6	1866		98
Buffalo and Penn. State Line	1st mortgage, not convertible	7	1866		
Chicago and Rock Island	1st mortgage, convertible	7	1870	94	95
Chicago and Mississippi	1st	7	1862		
Do do	2d "	7	1874	55	
Chicago and Aurora	1st	7	1866		
Cincinnati Newcastle and Mich.	Real Estate			72½	30
Cleveland, Columbus, and Cincinnati	1st mortgage, convertible	7	1859		
Do do	No mortgage, convertible	7	1855		
Cleveland and Mahoning	1st mortgage	7	1861		
Cleveland, Painesville and Ashtabula	2d " not convertible	7	1861		
Do do	1st " convertible	7	1860		
Cleveland and Pittsburgh	1st " 2d sec. convertible	7	1873		
Do do	1st mort. not conv. '73	7	1863	72½	
Cleveland, Zanesville, and Cincinnati	1st mortgage	7	1867	75	80
Do do	2d mortgage	7	1868	80	80
Cincinnati, Hamilton and Dayton	1st mortgage, real estate, convertible	10	5 & 10 y's	30	
Do do	" " " "	8		44½	
Cincinnati Western	2d " " " "	7		65	
Cincinnati, Wilmington and Zanesville	1st mortgage, convertible	7	1862	75	76
Do do	2d " " " "	7	1859	50	51
Cincinnati, Indianapolis and Chicago	1st mortgage, convertible	7	1883	65	65
Columbus and Lake Erie	Income	10		74	75
Columbus, Piqua and Indiana	1st " " " "	7	1867		
Do do	1st " " " "	7	1862		
Columbus and Xenia	1st " " " "	10	1864	42	45
Covington and Lexington	1st mortgage	7	1862	60	
Do do	1st mort. guaranty Mich. So. R. R.	7	1862		
Dayton and Michigan	1st Mortgage	7		80	81
Do do	1st " " " "	6			
Dayton and Western	Pledge of 2d section, convertible	10	1853-6	90½	
Dayton, Xenia and Belpre	1st mort.	6	1875	82½	83
Eaton and Hamilton	1st mortgage, not convertible	7	1866	74	74
Eaton and Piqua	Freeland	7	1866	63½	75
Erie and Kalamazoo	1st mortgage, convertible	10	1857	80	80
Evansville and Crawfordsville	1st " " " "	10	1860-1	75	75
Frankfort and Lexington	Dividend	7		62½	63
Franklin and Warren	1st " " " "	7	1861		
Galena and Chicago Union	1st " not " "	7	1861		
Hillsboro and Cincinnati	1st " " " "	7	1867		
Illinois Central	Real Estate	10		72	73
Do do	1st mortgage	8	1864	77	82
Indiana Central	1st mortgage, not convertible	6	1863		
Do do	2d " " " "	7	1861		
Indianapolis and Bellefontaine	1st mortgage, convertible	7	1855		
Indianapolis and Cincinnati	1st " " " "	7	1873		
Indianapolis and Lafayette	1st mortgage, convertible till 1855	7	1855-6	75	
Jeffersonville	2d " " " "	7	1866	75	
Junction (Ohio)	Dividend	7	1860	75	
Do do	1st mortgage, convertible after 1853	6	1861		
La Crosse and Milwaukee	Domestic Bonds	7	1868	57½	60
Little Miami	1st " " " "	7	1868		
Do do	2d " " " "	7	1861		
Louisville and Nashville	1st " " " "	8	1860	97	
Lyons', Iowa, Central	1st " " " "	8	1855-6		
Mad River and Lake Erie	1st " " " "	8	1857-8		
Do do	1st " " " "	7	1860-90	77	100
Do do	1st mortgage 6s. 1884	8	1862		
Madison and Indianapolis	mortgage on 1st section	10	1858-62		
Marietta and Cincinnati	1st " on other sections, convert.	8	1864-75		
Do do	1st " convertible	6	1873		
Hillsborough and Cincinnati	2d " " " "	7		101½	102
Maysville and Big Sandy	1st mortgage, not convertible	7	1867		
Maysville and Lexington	2d " convertible	7	1875	87½	88
Memphis and Charleston	1st " " " "	7	1883	94½	95
Michigan Central	1st mort. conv.	8	1873		
Do do	1st mortgage, not convertible	7	1861	79	
Do do	1st mortgage, convertible	7	1868		
Michigan Southern	Construction Bonds				
Milwaukee and Mississippi	1st mortgage, convertible	7	1861	61	
Mobile and Ohio	2d " " " "	7	1880	60	65½
Nashville and Chattanooga	1st " " " "	7	1867		
New Albany and Salem	1st " " " "	7	1865		
Do do	Income. No mortgage, convertible	7	1872		
New Castle and Richmond	1st mortgage, convertible	7	1866	108	110
New York Central	" Guar. City of Baltimore	7	1873		
New York and Erie	1st mortgage, convertible till 1860	6	1880		
Do do	1st " convertible	7	1872		
Do do	1st " " " "	7	1860		
Northern Cross, Ill.	2d " " " "	10	1853-7		
Northern Indiana	1st " conv. coupons	7	1861		
Do do	" " " " "				
Do do	1st mortgage, not convertible	7	1861		
Ohio Central	1st mortgage, convertible	7	1865		
Ohio and Mississippi	1st " " " "	7	1862-73		
Ohio and Indiana	2d " " " "	8	1865		
Ohio and Pennsylvania	1st mortgage, convertible	6	1866		
Do do	2d " " " "	7	1863	87	88
Pacific, Mo.	1st " " " "				
Panama	1st mortgage, convertible	7	1866		
Parkersburg (or Northwestern Va.)	" Guar. City of Baltimore	7	1873		
Pennsylvania	1st mortgage, convertible till 1860	6	1880		
Peru and Indianapolis	1st " convertible	7	1872		
Rock River Valley Union	1st " " " "	7	1860		
Sandusky and Mansfield	2d " " " "	10	1853-7		
Do do	1st " conv. coupons	7	1861		
Scioto and Hocking Valley	" " " " "				
Southwestern, Tennessee	1st mortgage, convertible	7	1865		
Springfield and Columbus	1st " " " "	7	1862-73		
Steuernville and Indiana	2d " " " "	8	1865		
Terre Haute and Alton	1st mortgage, convertible	6	1866		
Do do	2d " " " "	7	1863		
Terre Haute and Richmond	1st " " " "				
Toledo, Norwalk and Cleveland	2d " " " "				
Do do	" Guar. of C. C. & C.		1883		

TABLES OF RAILROAD SHARES.

The following quotations are not per share, but upon the HUNDRED DOLLARS.

	shares.	off'd.	ask'd.
Baltimore and Ohio	100	44	44
Bellefontaine and Delaware	50		
Bellefontaine and Indiana	50	42½	43
Bellefontaine and Illinois			
Buffalo and Pennsylvania State Line			
Central Military Tract			
Central Ohio	50	47½	50
Chicago and Rock Island		91	92
Chicago & Miss., (Alton & Springfield)			
Cincinnati, Cambridge and Chicago			
Cincinnati and Fort Wayne	10		
Cincinnati Hamilton and Dayton	100	72½	75
Cincinnati, Indianapolis and Chicago			
Cincinnati, Logansport and Chicago	50	8½	15
Cincinnati Western	50	10	20
Cin. Wilmington and Zanesville	50	34	34
Cleveland, Columbus and Cin	100	107	108
Cleveland, Medina and Tuscarawas			
Cleveland, Painesville and Ashtabula	100		
Cleveland and Pittsburgh	50	40	41
Cleveland and Mahoning			
Cleveland and Toledo	50	77½	78
Cleveland, Zanesville, and Cincinnati			
Clinton Line			
Columbus and Lake Erie			
Columbus, Piqua and Indiana			
Columbus and Xenia		92½	100
Covington and Lexington	50	32½	35
Covington and Ohio, Va			
Dayton and Michigan	50		
Dayton and Western	50	20	20
Dayton Short Line	50		
Dayton, Xenia and Belpre			
Deloit and Pontiac			
Eaton and Hamilton	25	25	27
Eaton and Piqua			
Erie and Northeast		99	
Erie and Kalamazoo			
Evansville and Crawfordsville			
Fort Wayne and Mississippi	50		
Fort Wayne and Southern	25	10½	12
Franklin and Warren			
Galena and Chicago Union	100	95	96
Greenville and Miami	50	20	
Hannibal and St. Joseph			
Hartem		32½	33
Hudson River		43	44
Henderson and Nashville			
Hillsboro' and Cincinnati	50	18	25
Illinois Central 10 per cent.	100	97½	100
Illinois and Wisconsin			
Indiana Central	50	44	60
Do do 10 per cent.	50		
Indianapolis and Bellefontaine	25	50	50
Indianapolis and Cincinnati	50	49	50
Indianapolis and Lafayette	50		
Jeffersonville and Indianapolis	50		
Junction (Ohio)	50	15	17
La Crosse and Milwaukee	100		
Lake Erie, Wabash and St. Louis			
Lawrenceburg and Upper Mississippi	50		
Lexington and Frankfort			
Lexington and Danville			
Little Miami	50	96½	100
Logansport and Pacific			
Logansport and Marion			
Louisville and Frankfort	50		
Louisville and Nashville	100		
Macon, Georgia	10		
Mad River and Lake Erie	50	35	36
Madison and Indianapolis	50		
Madison, Indianapolis and Peru	50	20	
Marietta and Cincinnati	50	28	30
Marion and Mississippi Valley			
Maysville and Lexington	50		
Maysville and Big Sandy			
Memphis and Charleston			
Michigan Central		81	82
Michigan Southern		92	93
Milwaukee and Mississippi			
Mobile and Ohio			
Nashville and Chattanooga			
New Albany and Salem	50	20	20
New Orleans and Ohio			
New York Central		93½	96
New York and Erie	100	42½	49
Northern Indiana		92	92
Northern and Indiana			
Ohio and Mississippi	50	26	35
Ohio and Pennsylvania	50		85
Ohio River and Wabash			
Pacific, Mo.			
Panama			
Parkersburg, or Northwestern Va.		103	104
Pennsylvania	50	43½	44
Peru and Indianapolis	25	35	
Sandusky and Mansfield	50		
Sandusky, Mansfield, and Newark	50		
Reading		83½	84
Scioto and Hocking Valley	50		
Southwestern, Tenn.			
Springfield Mt. Vernon and Pittsb'gh	50		
Springfield and Columbus			
Steuernville and Indiana			
Terre Haute and Alton			
Terre Haute and Richmond		95	100
Toledo and Illinois			
Toledo, Norwalk and Cleveland	50		







## THE BOLLMAN SUSPENSION BRIDGE.

The last annual report of the Baltimore and Ohio Railroad contains exhibits of the cost of several of the above bridges, as constructed by the Company for their own road. From among these we select the "Elysville Bridge," of which we have obtained the following additional particulars not embraced in the Company's report.

Three spans, each 97 feet 9 inches in clear. Height of truss from centre of suspension rod eyes to centre of top chord, 16 feet. The bridge is built upon a "skew," or on oblique abutments. It is wide enough for two tracks; being 24 feet 8 inches in clear, at right angles with the chords. Each span is divided in seven panels.

The foundations are on rock, in about six feet depth of water, the piers being about ten feet high above water level. The piers are faced and capped with dressed granite, the interior being filled with rubble.

All parts of the bridge are of iron, except the floor beams and railjoists.

The following statement of cost, covers only the actual cost to the Company, of labor, and materials as furnished from their own works.

Stone.....	\$5,833 85
Cement, Lime and Sand.....	130 44
Granite Blocks.....	392 59
67,037 feet Lumber, \$20 per M.....	1,341 15
1,471 lbs. Nails.....	62 50
Nuts.....	7 77
Powder.....	22 50
Manilla Rope.....	8 20
Coal.....	19 85
Brass.....	1 23
Paints, Oils, &c.....	348 91
922,346 lbs. Cast Iron, 2.75 per lb.....	6,114 57
65,665 lbs. Wrought Iron, 3.64 per lb.....	2,368 96
402 lbs. Cast Steel.....	64 82
Galvanized Iron.....	67 70

Stone Work.....	3,477 88
Lumber for Coffor Dam.....	247 00
Shovels.....	4 75
Trestling to raise Iron Structure.....	262 67
Dressing, Framing and Fitting.....	1 23
Wood Work.....	940 72
Carpenter's Work at Mt. Clare.....	192 40
Finisher's Work.....	1,406 03
Finisher's Work, Raising Bridge.....	773 29
Smith's Work.....	1,566 40
Painter's ".....	345 35
Laborer's ".....	302 10
Draftman's Work.....	174 00

Trestling Old Bridge.....	276 34
Taking down Old Bridge.....	350 97
Taking down and clearing away.....	73 05
	691 36

Cr.....	\$25,168 95
By 69,816 lbs. old Cast Iron, \$25 per ton.....	637 54
By 29,336 lbs. Wrought Iron, 3 ct. per lb.....	886 08
Total Cost.....	\$23,625 33
	R. R. Advocate.

## POSTAGE.

For the benefit of our subscribers who receive their Records by mail, we publish some of the post office regulations; it may save considerable expense in the course of the year:

Quarterly Rates of Postage, when paid in advance, on Newspapers and Periodicals sent from the office of publication to actual subscribers.

Weekly newspapers (1 copy only) sent to actual subscribers within the county where printed and published, free.

Newspapers and periodicals not exceeding 1½ oz. in weight, when circulated in the State where published, 3½ cents.

Newspapers and periodicals of the weight of 3 oz. and under, sent to any part of the United States, 6½ cents.

## DIRECTIONS.

1st. Publishers of newspapers and periodicals may

send to each other from their respective offices of publication, free of postage, one copy of each publication; and may also send to each actual subscriber, enclosed in their publication, bills and receipts for the same, free of postage.

2d. Quarterly payments in advance may be made either at the mailing office or the office of delivery. When made at the mailing office, satisfactory evidence of such payment must be exhibited to the postmaster at the office.

## THE LAW OF NEWSPAPERS.

1. Subscribers who do not give express notice to the contrary, are considered as wishing to continue their subscriptions.

2. If subscribers order the discontinuance of their papers, the publisher can continue to send them until all arrearages are paid.

3. If subscribers neglect or refuse to take their papers from the office to which they are directed, they are held responsible till they settle their bill, and order the papers discontinued.

4. If any subscribers remove to another place without informing the publisher, and their paper is sent to the former direction, they are held responsible.

5. The courts have decided that refusing to take a newspaper from the office, or removing and leaving it uncalled for, is prima facie evidence of intentional fraud.

## Cleveland &amp; Columbus Railroad.

OFFICE—Cleveland, Ohio.

Alfred Kelly, Pres't.....L. Tilton, Sup't.

## Cleveland &amp; Erie Railroad.

OFFICE—Cleveland, Ohio.

William Case, Pres't.....L. Tilton, Sup't.

## Buffalo &amp; Erie Railroad.

OFFICE—Buffalo, N. Y.

G. Palmer, Pres't. Buff. & State R. R. } C. C. Dennis,  
C. H. Reed, Pres. Erie & North-E. R. R. } Supt.  
ly mar. 27.

## New York Central Railroad.

OFFICE—Albany, N. Y.

E. Corning, Prest.....C. Vibbard, Sup't.

## Indianapolis &amp; Cincinnati Railroad.

OFFICE—Indianapolis, Ind.

Col. T. A. Morris.....Pres't.  
ly mar. 27.

## Indiana Central Railroad.

OFFICE—Indianapolis, Ind.

I. S. Newman.....Pres't,  
ly mar. 27.

CINCINNATI, HAMILTON AND DAYTON RAILROAD, }  
SECRETARY'S OFFICE.

THE ANNUAL ELECTION of the Stockholders of this Company will be held at the office of the Company in Cincinnati, on Monday, the 7th proximo, at 9 o'clock A. M.

The Annual Election for the choice of Directors to serve for the ensuing year will be held at the same place, and on the same day, between the hours of 2 and 5 o'clock P. M.

FRANK S. BOND, Sec'y.

Cincinnati, April 2d, 1855.—Apr. 55.

## Railroad Printing.

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,  
Railroad Record Office, 167 Walnut st Cin.

## Railroad Record

PUBLISHED EVERY THURSDAY MORNING,

By T. WRIGHTSON & CO.

Office No. 167 Walnut Street,  
E. D. MANSFIELD, Editor.

J. A. JAMES,  
W. WRIGHTSON, } ASSOCIATE EDITORS.

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" " six months.....	12 00
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" " per annum.....	75 00
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" " six months.....	110 00
" " per annum.....	200 00

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Publishers, and Proprietors,

## TO RAILROADS AND CONTRACTORS.

HORSE POWERS.—The undersigned being agents for the sale of R. H. Pease formerly Emery & Co.'s Horse Powers, are prepared to furnish them to order. They occupy little room and do their work effectually. T. WRIGHTSON & CO.

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AUBIN'S PATENT.—We are agents for this new and improved furnace, and having had one in operation at our office for several months past, can confidently recommend it as being simple in its operation, occupying little room and furnishing a pure and beautiful burning gas. From the peculiar arrangement of the retort it is not liable to burn out, thus saving a great part of the expensive repairs of other furnaces. We are prepared to erect these furnaces at our own risk and warrant them to produce good gas.

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No. 3 College Hall, Walnut St. Cincinnati.E. MENDENHALL,  
MAP, BOOK & PRINT SELLER,

Has constantly on hand  
GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND  
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Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES,

## DRAWING INSTRUMENTS, &amp;c.

Publisher of the  
Railway Map of the Western States,  
In Sheet or in Pocket Case;  
The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
the LARGE MAPS OF CINCINNATI, and HAMILTON CO.,  
Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
MAPS OF EVERY DESCRIPTION.

## RAILROAD HOTEL.

CINCINNATI, O.

THE GIBSON HOUSE, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.

A. WETHERBEE, Proprietor.

NUGENT'S COLLEGE  
OF  
ENGINEERS & MECHANICS,  
PUBLIC SQUARE, CLEVELAND, OHIO;  
C. NUGENT, C. E., Principal.

THE design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal. au.10.



**28**  
**PLATT STREET.**  
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**IRON BOILER TUBES,**  
**Prosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
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**Countersinks, Cutting Bars and Pall-**  
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**Artesian Well Tubes**  
**Screwed flush inside and outside.**  
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**For Core-Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c. &c.**  
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**HOLLOW SLAB WATER TUYERES,**  
**For Smiths' use, and**  
**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**  
 for warming air, boiling water and heating ovens.  
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**CELEBRATED CAST STEEL,**  
 For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length.)

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**PATENTED CAST-STEEL TIRES,**  
 For Railway Wheels. Railway Axles and Springs.

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**MANUFACTURERS of Engine Lathes, Planing Machines, Drill Presses, Hand Lathes, and other Machinists Tools.** These tools are built in a superior manner, from the very best materials, and are particularly adapted for railroad shops and all others repairing first rate machinery. Our location is very advantageous for shipping work to the West or South. Orders and communications receive prompt attention. Address  
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**PATENT**

**PLATFORM SCALES.**



**WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.**

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.  
 dec27 **HEWSON & HOLMES,**  
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**STEREOTYPE FOUNDRY,**

AND AGENCY OF

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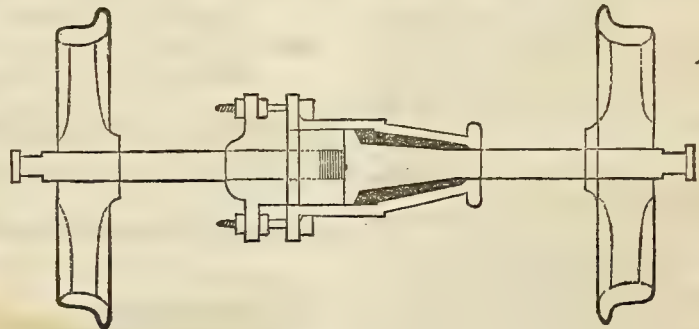
**C. F. O'DRISCOLL,** (Successor to A. C. JAMES.) is prepared to execute in the best manner all kinds of **STEREOTYPING,** including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of

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**C. F. O'DRISCOLL,**

No. 167 Walnut Street,  
 Cincinnati, O

**DENNEY'S DIVIDED CAR AXLE.**



**PATENTED JANUARY 31ST, 1854.**

**THE ATTENTION OF RAILROAD COMPANIES** is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**

Christiania, Pa.

Or, to **CHRISTIAN UMBLE,**  
 Gap, Pa.



## T. N. RAFFINGTON, GENERAL ENGRAVER,

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THE Field Practice of Laying out Circular Curves  
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wine, C. E.; 2d edition.

Price, one dollar each. Postage on the Curves, five  
cents; on the Excavations and Embankments, eight  
cents. For sale by WILLIAM HAMILTON,  
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Sept. 21-3\*

## ENGINEERS' & SURVEYORS' INSTRUMENTS. JAMES FOSTER, Jr.,

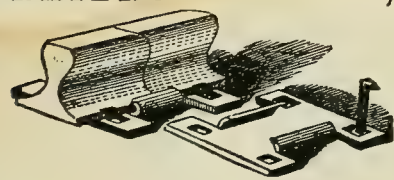
SOUTH WEST CORNER OF FIFTH & RACE STS.



HAS FOR SALE, OF HIS OWN  
MAKE, Levels, Transits, Theo-  
dolites, the Dumpy or Gravatt's Level,  
Circular Protractors of Troughton &  
Simms and other models, Surveyors,  
Compasses, Pocket Compasses with  
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ers, Barometers, Thermometers, Spy  
Glasses, &c., &c. Repairing promptly  
attended to.

Dr. Locke's Hand Level always for  
sale. For construction and use, see R.  
Record of October 20th, 1853. mrl-tf

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THE undersigned will continue to manufacture with  
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SPIKES, of all Patterns, WROUGHT and CAST  
CHAIRS, and FASTENINGS, BOILER RIVETS  
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The best quality of refined iron is used, and all orders  
filled with despatch. J. HOPKINSON SMITH,  
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Please direct the name in full.  
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## CLINTON ROBSON & CO., BRASS FOUNDERS,

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STOP COCKS, Bibb, Flange, Valve, Gauge, and  
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Couplings, Salt Well, and Hose Joints; Steam Whis-  
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Pumps of all descriptions, Brass and Composition  
Castings, Dixon's best Black Lead Crucibles.

Also, Dr. Ransom's Patent Constant Suction Pump  
for Railroad Water Stations.

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I WOULD respectfully call the attention of Railroad  
Companies and Contractors to my facilities for  
NOTCHING RAILROAD IRON

Suitable to be spiked in the Chairs. My Portable Punch-  
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me to make contracts for punching iron at a less price  
than can be done with any other Punching Machine now  
in use.

Orders solicited, and work executed in any part of  
the United States. Address,

jan11.-tf. S. M'KENNA,  
Box 705, Cincinnati P. O., Ohio.

## NOTICE TO CONTRACTORS.

## Nashville & North-Western R. R.

PROPOSALS will be received at the Office of the  
Nashville and North-Western Railroad Company, for  
the Graduation and Masonry of said road, in sections  
of twenty or thirty miles.

The Company reserve the right to reject all the pro-  
posals, if none are satisfactory.

The length of the road is one hundred and sixty miles,  
and proposals are invited from contractors of ability  
for the entire work, including track, stating what  
amount of bonds, stock and cash will be received in  
payment.

Any information required, can be received by appli-  
cation to N. MACNEALE, Chief Engineer.  
Nashville, Tenn., 25 Jan., 1855. febtolmy

## THOS. M. CASH,

## PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway  
Companies, On Commission.

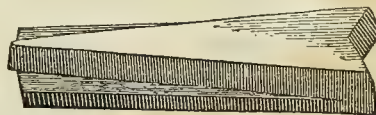
Office, No. 80, South Fourth-street, near Walnut,

## PHILADELPHIA.

## REFERENCES

Richard Norris & Son, Locomotive Builders, Philad'a.  
Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "  
Charles H. Fister, Esq., "  
Jno. Caldwell, Esq., Pres't S.C. R.R. Co. Charleston, S.C.  
Pinckney Huger, Esq., Pres't N. E. R.R. Co. "  
Oct. 13-tf.

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel,  
in a liquid state, can be moulded into any shape or  
form, are, by means of this valuable discovery, manu-  
facturing

## RAILROAD FROG-POINTS,

## Lathe Mandrels, Gauges

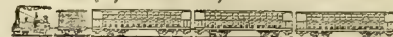
of every description for blacksmiths use; Steps for Mill  
Spindles and Shafting, Swage Hammers, and almost all  
the different variety of tools which are difficult to  
forge. Articles made in this manner, are much superi-  
or to forged productions, as the steel out of which  
they are manufactured, loses none of the carbonic  
element, but retains it in all its original purity, while  
under the repeated heats to which it is subjected by the  
old and tedious process, it loses much of this valuable  
property. They are also produced in a much more per-  
fect state, needing little or no fitting or dressing, hav-  
ing all the accuracy of shape which moulded articles  
possess. They can, also, be furnished at one-half the  
cost of the others.

The qualities of the Frog points have been already  
tested by the Ohio and Mississippi Railroad Company,  
to whom the manufacturers are furnishing them through  
G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this  
valuable invention. LEE & LEAVITT,  
15 Walnut-st, Cin'ti.

N. B.—They would also call the attention of the public  
to their valuable and extensive assortment of cast  
steel saws, and circular saw mills, etc.

## NORTH, EAST, AND WEST!



BY WAY OF

## Cincinnati, Hamilton and Dayton R.R.

## WINTER ARRANGEMENT:

COMMENCING MONDAY, DEC. 11, 1854.

Passenger Trains will leave the Sixth-street  
Depot as follows:

FOR INDIANAPOLIS, CHICAGO,  
ST. LOUIS, &c., &c., &c.

At 6 A. M. and 2.15 P. M.,

Trains leave the Hamilton, Eaton, Richmond, Indi-  
anapolis, Terre Haute, Lafayette, Chicago, Galena,  
Rock Island, St. Louis, &c.

At 8 A. M.,

Dayton, Sandusky, Cleveland, Pitts-  
burg, Philadelphia, Baltimore,  
New York, &c.

At 2.15 P. M. and 4 P. M.

For Hamilton, Dayton and intermediate points.

At 5.20 P. M.,

For Hamilton, Richmond and intermediate points.

The 6 A. M. Train will connect at Richmond, at 9  
A. M., with Train of Indiana Central Road for Indiana-  
polis; arrive there at 11.30, A. M.; thence to Terre  
Haute, Lafayette, and Chicago, without detention.  
Time as short as any other route.

The 8 A. M. Train will connect at Dayton, at 10.30,  
A. M., with Mad River Train for Sandusky and inter-  
mediate points; also at Crestline at 4.20 P. M. with  
Ohio and Pennsylvania train for Pittsburgh, Philadel-  
phia, Washington, &c. The same Train will connect  
Clyde with Toledo and Cleveland Train to Toledo,  
Chicago, and intermediate points. Also, with Dayton  
and Michigan Railroad to Troy and Piqua, and with  
Dayton and Greenville Railroad to Greenville, Union  
and all points on Bellefontaine and Indianapolis Rail-  
road, at 2.45 P. M.

The 2.15 P. M. Train connects at Richmond with  
Indiana Central Train for Indianapolis Terre Haute,  
Lafayette, and Chicago. Also, with Train for Hagers-  
town and Newcastle.

The 4 P. M. Train connects at Dayton with Train for  
Troy, Piqua, &c.

For further information or tickets, apply to W. A.  
LATHAM, General Agent, at the Office, corner Broad-  
way and Front street, under Spencer House, or at the  
office on Walnut street, next door to the Gibson House  
or at the Sixth-street depot.

HENRY O. AMES, Sup'l.

The Omnibus Line will call for passengers by leaving  
their name at the office. W. H. SMITH, Conductor.

## WINTER ARRANGEMENT. SAFETY—SPEED—COMFORT.

## Cincinnati to Indianapolis.

St. Louis, Chicago, Galena and Rock  
Island,

BY THE WAY OF THE

## CINCINNATI, HAMILTON AND DAYTON, AND EATON & HAMILTON RAILROADS.

TO CHICAGO, in..... 15 HOURS  
TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route o-  
any in the West, as it passes through the richest and  
most thickly settled portion of the State of Indiana. In  
taking this route, passengers will reach Terre Haute,  
Lafayette, Peru, Michigan City, Chicago, Rock Island,  
Galena and St. Louis, as soon as any other leaving  
Cincinnati, and with but little fatigue, in consequence of  
the superior manner in which the roads are constructed  
and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,  
LAFAYETTE, PERU, &c.

Trains leave the Depot of the Cincinnati, Hamilton  
and Dayton Railroad as follows, viz:

First Train—Lightning Express at 6 A. M.  
Second Train—Accommodation at 2.15, P. M., con-  
necting at Richmond with train for Hagerstown, New-  
castle, &c., &c.

Third Train—Accommodation, at 5.20, P. M., for  
Richmond and intermediate points.

Returning, reach Cincinnati at 10, A. M. and 12 M.  
and 6 P. M.

Fare to Indianapolis.....\$3 50  
" Lafayette..... 5 50  
" Terre Haute..... 5 75

For through tickets and information, please apply at  
the General Railroad Ticket Office, No. 169 Walnut-st.,  
or to W. A. LATHAM, at Cincinnati, Hamilton and  
Dayton Railroad Office, corner of Broadway and Front  
streets, under the Spencer House, or at the Sixth-street  
Depot.

JOHN W. SHIPLEY, Agent.  
The Omnibus Line will call for passengers by leaving  
their orders at the offices.

feb. 8-1y W. H. SMITH, Conductor.  
D. M. MORROW, Superintendent.



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALT MORE.

THIS Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
Through Tickets from all Parts of the West,  
ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis  
Chicago, Toledo, Detroit, Cleveland, Columbus,  
Zanesville and other Cities.

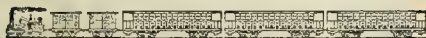
AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED  
**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILA-**  
**DELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**PHILADELPHIA AND NEW YORK RAILROADS,**

The numerous Steamers of the Baltimore, Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericsson Steamers by Canal to Philadelphia and New York, And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.  
**WM. G. HARRISON,** President.  
**JOHN H. DONE,** Mast. of Transportation,  
Baltimore.  
je. 8†

**The Shortest, Quickest and Best  
ROUTE TO LOUISVILLE.**

**MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.**

**OHIO & MISSISSIPPI RAILROAD,**  
ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER notice, the Passenger Trains will run as follows:

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad,

**Fare \$2 50.****For Indianapolis.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.****For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M. 2.30 P. M., 4.05 P. M., and 9.30 P. M.

FREIGHT TRAINS for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth street, north side, four doors from Vine street, opposite new Custom-house.

S. S. POST,  
Chf. Eng'r and Supt.  
Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Cannibuses call at all the principal Hotels, for each train.  
W. S. BABCOCK, Agent,  
Sept 5. St. Louis and Cincinnati Omnibus Line.

**1855. Winter Arrangement, 1855.  
COMMENCING MONDAY, JAN. 29.**

**LITTLE MIAMI AND COLUMBUS AND XENIA RAILROAD.**—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

**FROM CINCINNATI TO**

To New York in .....	32½ hours.
To Philadelphia in .....	31½ "
To Washington in .....	29 "
To Baltimore in .....	28 "
To Buffalo in .....	16½ "
To Dunkirk in .....	15 "
To Cleveland in .....	9½ "
To Sandusky in .....	8½ "
To Pittsburgh in .....	14 "
To Wheeling, in .....	10½ "

**FOUR DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

**SECOND TRAIN.**—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

**THIRD TRAIN.**—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stop at all points between Cincinnati and Morrow.

**FOURTH TRAIN.**—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**FARE AND THROUGH TICKETS.**

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-boat Landing, or at the Eastern (Little Miami) Depot, East Front street.

WM. H. CLEMENT, Superintendent.

P. W. SRADER, General Agent.

**OMNIBUS LINE.**

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

**COLUMBUS PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West and from Urbana, East.

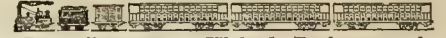
On and after Monday September 19, 1853, two trains per day, (Sunday excepted) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a.m., and 3.30 p.m., arriving at Urbana at 8.12 a.m., and 6.14 p.m. Returning—will leave Urbana, for Columbus, at 9.15 a.m., and 3.00 p.m.—arriving at 12.05 and 6.55 p.m.

The 4.50 a.m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p.m. train—arriving at Urbana in time to get supper and take the 5.35 p.m. train for Dayton and Cincinnati.

The 9.15 a.m. train from Urbana connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a.m.—arriving at Columbus at 12.05 p.m. in time for the 1 p.m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p.m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p.m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Sup  
Piqua, Sept. 13, 1853. at 0-11.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also, connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 3.30 A. M., for Indianapolis, connecting with Trains for the South and East

E. G. BARNEY, Superintendent.

Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.  
Two Daily Passenger Trains.

On and after MONDAY Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M. stopping at Grant's Bend New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Falmouth, Callenville, Boyd's, Berry's, Robinson's, Garrett's, Cynthia, Laird's and Kiser's and arriving at Paris at 11.30 A. M.

Returning, leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, leave Lexington at 10 o'clock, A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Train North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leave Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train lie over night at Paris and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.  
J. M. DOUGHERTY,  
Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices.  
oct. 17 CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis by Indianapolis & Cincinnati Railroad,**

VIA LAWRENCEBURG,

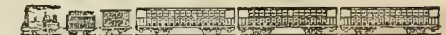
**IN** connection with the **OHIO & MISSISSIPPI RAILROAD.** Passenger Trains leave Cincinnati at 7.15 A. M., and 3.15 P. M. Arrive at Indianapolis at 11.30 A. M., and 8.30 P. M.

By morning train passengers arrive at Chicago in 14 hours, and at St. Louis in 28 hours.

Freight shipped to Indianapolis and all other points West and North without delay at cheapest rates.

Cars run from Lawrenceburg to Terre Haute, Lafayette, Peru and Chicago, without unloading.

Office, foot of Main street corner of Water street.  
SIDNEY RICE,  
Cincinnati Sept. 28, 1854. Agent.

**Terre Haute & Richmond R. R.**

**TERRE HAUTE, VINCENNES, EVANSVILLE, PARIS AND CHARLESTON.**

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1.10 P. M., (after the arrival of the trains from Cincinnati,) arrive at Terre Haute at 4.49 P. M. Passengers for Paris and Charleston take the cars of the Terre Haute and Alton Railroad, which leave daily at 7.30 A. M. Those for Vincennes and Evansville take the cars of the Evansville and Crawfordsville Railroad daily, at 8.30 A. M.

Passenger Train leaves Terre Haute daily, Sunday excepted, at 7 A. M. for Indianapolis, connecting with Trains for the East, Cincinnati, and Louisville.

**FARES.**

Indianapolis to Terre Haute.....	\$2 25
Terre Haute to Vincennes.....	2 25
" " to Evansville.....	4 00
" " to Paris.....	80
" " to Charleston.....	1 75

S. HUSTIS,  
Terre Haute, March 12, 1855. 6m. Superintendent.

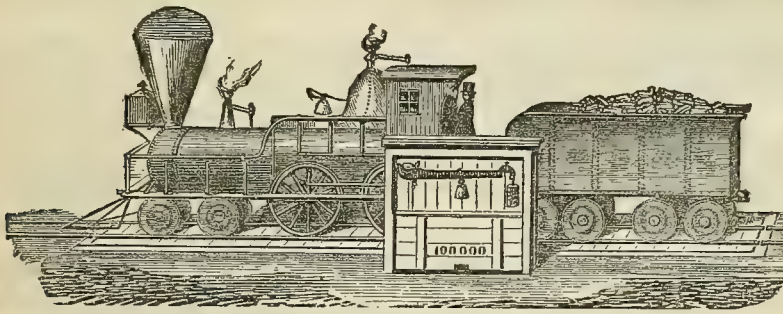


ISAAC RIGDON.

EDWARD C. RYLAND.

WM. HUDDART.

## OHIO SCALE WORKS.



**Rigdon, Ryland & Co.,**  
No. 39 Vine Street, between Front and Columbia streets,  
CINCINNATI.

WE are now prepared to furnish **Railroad Track and Depot Scales** of all sizes, which we warrant in every respect equal to any manufactured in the United States.  
Being practical workmen ourselves, we feel confident that we can furnish the West and South with as good an article and cheaper than can be bought East.  
Cincinnati, June 29, 1854.

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.  
They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of St and Machinery required for railroads.  
Particular attention will be paid to repairing, which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished or short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

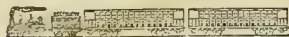
Communications or orders must be addressed to  
OLMSTED, TENNIS & PECK,  
c. S. 1f Louisville, Ky.

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.  
W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

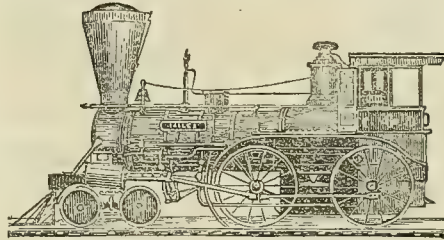
## LOCOMOTIVES OF SUPERIOR QUALITY.

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**ASHCROFT'S**  
**METALLIC STEAM GAUGE.**  
(BOURDEN'S PATENT)

THE subscribers offer for sale this valuable Gauge. It is adapted to Locomotive and other steam boilers, indicating with accuracy the continual variations of steam within the boiler, enabling the Engineer to maintain a uniform and safe pressure. Any of the Eastern Railroads may be referred to for proof of its importance and value.  
BRIDGES & BROTHER,  
rep. 15-1f 64 Courtlandt St., New York.

## LOCOMOTIVE WORKS.



## NILES &amp; CO.,

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for Iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c., &c.  
Feb. 13 1855-6m.

## Lightner's Patent Axle Boxes for Railroad Cars.

THE attention of Railroad Managers and others is called to this valuable improvement in  
AXLE BOXES.

The first cost and "fitting up" of these boxes is 20 to 25 per cent below that of most boxes in use. They will save about 75 per cent in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs one TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and Testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846-6. Office, No. Courtland st., New York.

## PROSSER'S PATENT

## Lap-Welded Iron Boiler Tubes.

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Awning Frames, Leaders, etc.  
Brass Boiler Tubes.

Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

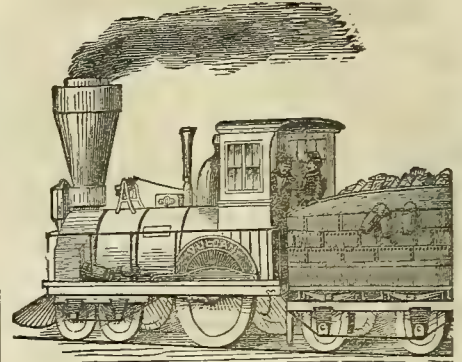
Agents for Krupp's celebrated Cast Steel for Shafts Railway Axles, Tyres, Platers' Rollers, etc.

P. S.—All Tools necessary for the construction or keeping in order of Tubular Boilers.

THOS. PROSSER & SON

au. 17 28 Platt street, New York.

## Cincinnati Locomotive Works!



THE undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap. 20 MOORE & RICHARDSON.

## WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

Late of the firm of T & E. Wason, Springfield, Massachusetts.  
to c20

## Railroad Car Findings.

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fitted Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

LOCOMOTIVE ENGINE LANTERNS, From the best Manufacturers, and at their prices. Car Hand, and Signal Lanterns.

## Cotton Duck for Car Covering,

Of any required width to 124 inches.

## ENAMELLED HEAD LININGS

Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan, and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

## Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers, Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.  
to c6

## CAR MANUFACTORY,

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops, are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 35 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and switches of the most approved patterns.

They also manufacture blacksmiths' tuyeres, Harris' Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

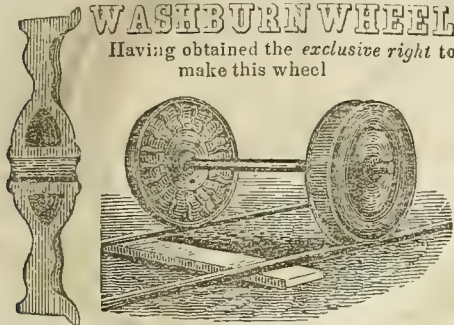
Dayton, Jan. 24th, 1852.

Jan. 23-1



**FULTON CAR WORKS,**  
CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



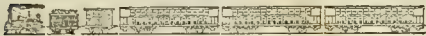
**WASHBURN WHEEL**  
Having obtained the *exclusive right* to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.



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WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

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**Railway Car Manufacturers,**  
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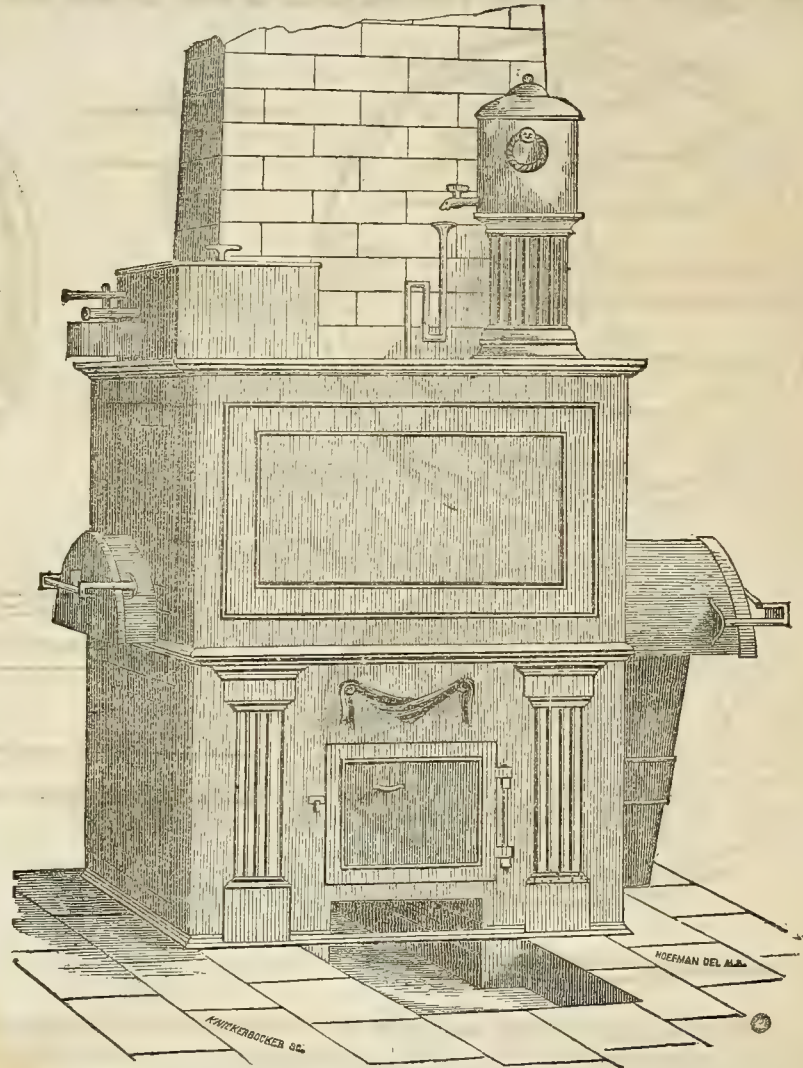
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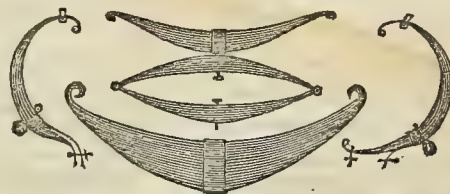


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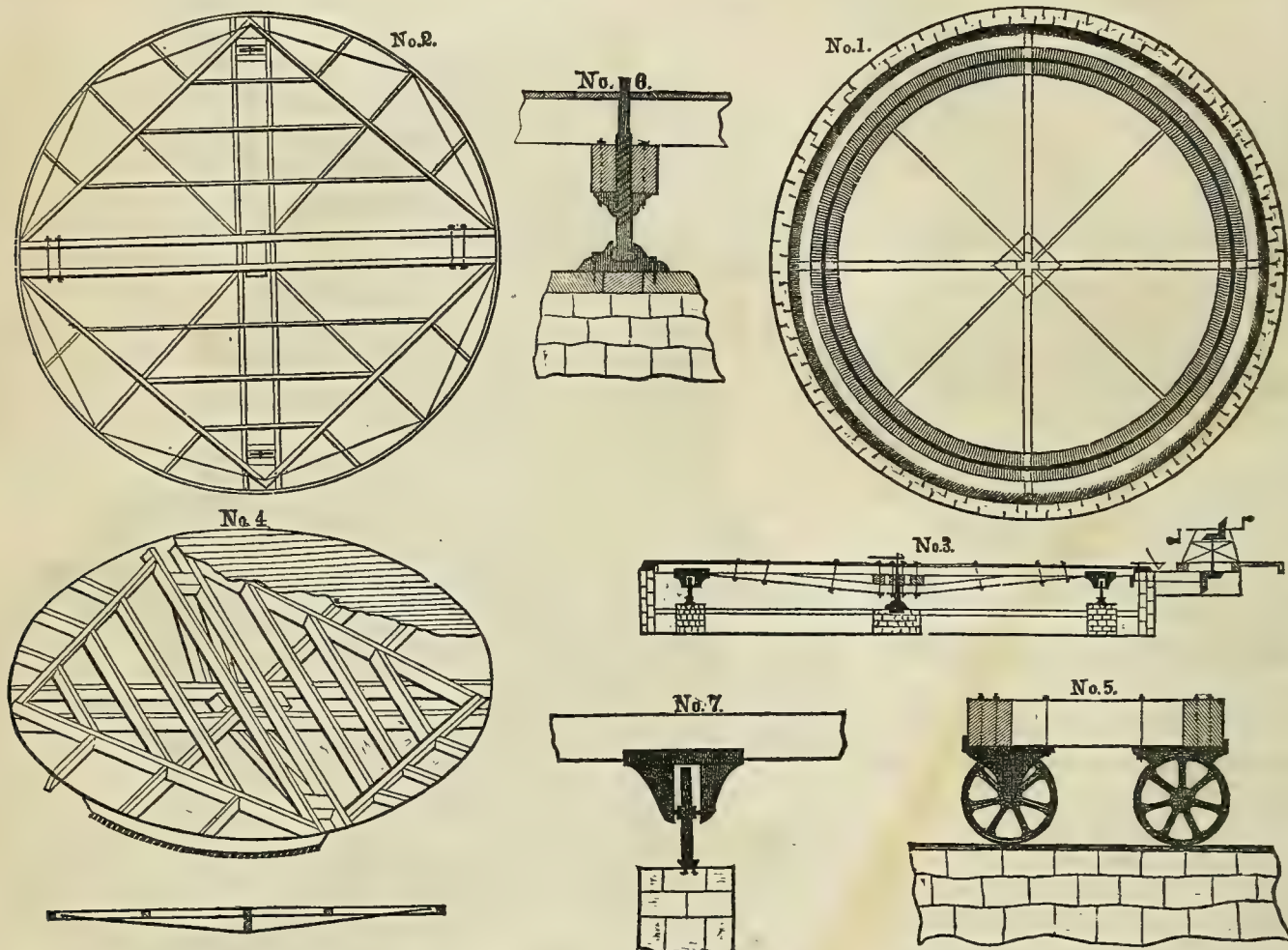
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## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland Ohio.

Columbus, Piqua & Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer, Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroads, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
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## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of Bank and Track Walls, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The Track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.  
Fig. 3, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

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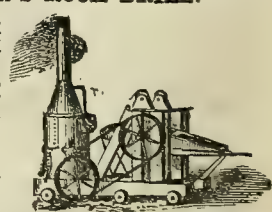
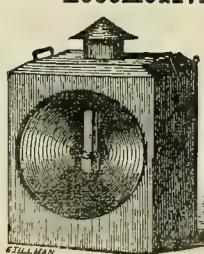
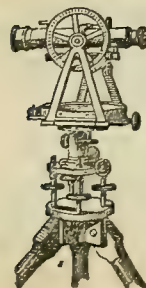
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A silver medal, the highest prize, was awarded these Machines at the World's Fair Applications for Territorial Rights and Machines must be made to the Patentee.

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# Railroad Record.

E. D. MANSFIELD, - - - - - Editor.  
J. A. JAMES, } - - - Associate Editors.  
W. WRIGHTSON, }

CINCINNATI:

THURSDAY MORNING, ..... APRIL 12, 1855.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

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**KENTUCKY MILITARY INSTITUTE.**—We would call the attention of our readers to the advertisement of this excellent Institution. It is located within six miles of Frankfort, Ky., at the Franklin Springs, in a position airy and beautiful. Its course of instruction, while it gives the student the elegance of classical finish, is brought down to the wants and necessities of the practical man of the present day.

Of its principal, it is sufficient to say that Col. Morgan graduated at West Point, served regularly in the army to the grade of Lieut. Colonel, and has attained a high position in practical engineering and in the instruction and government of youth.

One of the recommendations of the Institution, beside its high literary character, is that it is located at the *West*, here at our own homes, and where our children can be readily reached in case circumstances may render it desirable.

**PATENT AGENCY.**—Our readers will find among the New Advertisements for the week that of J. S. Brown, Esq., Agent for obtaining patents in the United States and Europe.

Capt. T. F. May of Philadelphia, is about to visit various portions of Pennsylvania and will receive subscriptions for the *Railroad Record*. Capt. May will also present the merits of Moseley's Tubular Bridge, a description of which will be found in our miscellaneous department.

VOL. III.—NO. 7.

## RAISING, EXPORTATION, AND CARRIAGE OF CATTLE FROM OHIO.

In the last five years, the carriage of cattle on Railroads in the West, has become a very important item in the railway experience. Formerly they were exclusively driven on foot, and from many districts not contiguous to railways, they are yet. But, as the transportation by rail is so very rapid, there is a great gain in the cost of carriage, and, therefore, where it can be done conveniently, they are carried in that way. The carriage of cattle on Ohio Railways is now fully equal to 20,000 tons, and will soon be double that.

It may be interesting to inquire a little into this matter, and ascertain the elements of the problem in Ohio. We take Ohio because it is the largest exporter of cattle, and we have the means of ascertaining very nearly the amount raised and exported from this state.

In 1854, the cattle of Ohio were as follows, viz:—

Aggregate Number.....	1,646,193
Milk Cows.....	643,023
Working Oxen.....	81,310
Steers, Yearlings, etc.....	921,860

Of the last class two-thirds, or about 600,000 are those which enter into consumption as beef; and of these one-third are marketable each year—that is 200,000. It is not easy to determine exactly how large a part of this number is exported; but the New York market furnishes one element of the calculation. There are sold in the New York market annually about 40,000 Ohio beef cattle. Great numbers are also sold in Philadelphia, and Baltimore, and some are sent down the river. We shall, therefore, be hardly over the mark, when we say that 100,000 beef cattle were exported from Ohio in 1854.

In order to show in what mode these were transported, we give the following results.

First, We have the following numbers exported from the ports, or by water, viz:

From Cleveland.....	2,920 cattle.
" Toledo.....	8,381 "
" Sandusky.....	5,563 "
" Cincinnati.....	200 "

Aggregate.....16,364 "

In the above the *Railway* export is not included. That we give below. There were carried on them:

Little Miami Railway.....	17,139 cattle.
Ohio and Pennsylvania R. R.....	7,474 "

Aggregate.....24,613 "

These are the only returns we have now before us; but these show an aggregate of 40,000 head. There are large sections of the State from which they are driven on foot; so that our estimate of 100,000 is not far from correct.

In the last winter and during this spring, cattle have participated in the general rise of prices, and they are now higher than they were ever known in the West. Beeves have been bought for the Cincinnati market at \$9 00 per cwt.; while in the New York market, \$11 and \$12 are paid. The price of a sirloin steak, is a standard of the value of

cattle. In London, that is now 24 cents per lb.; in New York 18 cents, and in Cincinnati 15. The prices paid for cattle in New York are comparatively enormous. 103 Ohio cattle of 7 cwt. each were sold at \$77 a head. Several lots of heavier weight were sold at \$86, \$96, and \$103. The general average of cattle in New York, taking them as they come, is about \$90 per head. This is an advance of full 30 per cent. within the last two years.

In New York, cattle will not probably fall much below their present prices, even should there be good crops. This will be evident when we consider in this age of steam, that all markets soon come to bear a fixed rate to the great central market—London. There the sirloin stake is 24 cents per lb., and that is a fixed quantity. Now, although we do not export any beef-steaks, we do export corn and wheat, the staple food of man and beast. All articles of human food relate themselves, in some degree, to these staples. There cannot, therefore, be long a great discrepancy between the prices of food in New York and London. They will equalize themselves. But the price in London or New York does not fall. On the contrary, the price of all articles of food has been raising for centuries. The reason is obvious. The human family multiplies rapidly; but the *tillable, arable land* does not increase, in fact, at all, and relatively not so fast as human beings. The standard value of grain and animals is, therefore, continually rising, and this constitutes one of the great *difficulties of modern civilization*. We are raising up cities and towns at the expense of human subsistence. There is no prospect that the *average* price of human food in our cities will soon be less, than it is today. Thus population does, in fact, pursue the law pointed by Matthew, *continually press against the limits of subsistence*.

In the meantime, agriculture is, and must remain, by far the best and most profitable employment pursued by man, in America. Those who are wise, will seek rather the healthy life and certain profits of the field, than the exciting speculations of the city.

The sale of cattle in Ohio has proved a source of very great profit. If 100,000 cattle sold bring an average of \$70 (and that is a minimum,) then the aggregate is *seven millions of dollars*. Many of these cattle were bought in Indiana and Illinois, but they were fed and fatted in Ohio, so that the profit accrued here.

According to the last report of the Ohio Agricultural Society, the following are the exports of the principal cattle counties:

Pickaway.....	8,500 head.
Ross.....	5,000 "
Perry.....	6,000 "
Madison.....	80,000 "
Champaign.....	10,000 "
Trumbull.....	8,000 "
Wood.....	3,000 "
Montgomery.....	5,000 "
Lake.....	2,000 "
Highland.....	7,000 "



The cattle of Ross and Pickaway counties are almost exclusively Durhams, and, perhaps, afford as fine samples of fattened cattle, as any raised in the United States. The cattle exported from Madison Co., are mostly bought in Illinois, Indiana, etc., and grazed on the rich pastures of Madison.

The cattle of Ohio have been greatly improved, and the utmost pains have been taken by many farmers, who deserve well of their country, for their efforts to get the best breed of this most valuable animal. Among these we may mention Ex-Governor Trumble, of Highland County; the Renicks, of Ross and Pickaway; Dr. Watts, of Chillicothe; Mr. Van Matre, of Pike; Waddle, of Clark; and friend Hadley, of Clinton. They are the valuable citizens who endeavor to improve the condition of mankind, by improving the arts of culture.

#### ECONOMICAL VALUE OF ONE MILE SAVED IN THE LENGTH OF A ROAD.

The building of railroads has had three distinct eras, in each of which one step of progress was made towards perfection, both in principle and practice. The first era was the period of the level road-bed and the inclined plane, with a stationary engine and cable. The cost, inconvenience and vexatious delay, gradually introduced a spirit of inquiry as to whether some other and better method of building could not be devised. The result was the second era, when engineers racked their brains to invent graceful curves to pass around the hills, and thus by lengthening the road escape the obstacle which they could not surmount. This, of course, added materially to the length and also to the necessary cost. The third era is that of air lines, upon which we are just entering; and it is one of the many strange things that attend the history of every new branch of industry or science, that men will spend years and sometimes centuries in attempting by complicated contrivances to overcome imaginary difficulties, which have no real existence. Of such a character are many of the railroads between great commercial marts; they are made to bend and turn and twist in every way but the direct one, to accommodate here a little town, and there a stream of water, while if they had been laid down in the first place as they should have been, there would have been no hill nor town to interfere with the direct line.

But to our purpose. What is the economical value of one mile of railroad saved? At first thought a mile of railroad appears a trivial thing, simply *three minutes* of time, or *two coppers* to the passenger. But "trifles make up the sum of life," and trifles though these are, they make an aggregate of tremendous importance.

First, then, it is evident that one mile of

railroad saved on a given route is an actual saving of the *first cost* of that one mile, say \$30,000.

Second. It is an annual saving to the world at large of just so much money *every year* as would be *earned* on that one mile, say \$7,000.

Third. It is an annual saving to the company of the expenses necessary for working and keeping in repair that mile of road, say \$3,000.

Fourth. It is a saving to the world of a vast amount of time.

Our first proposition is in itself so evident as to need no further proof. Our second and third contain a point, capable of further illustration. The annual saving to the business world in the amount of their freights and the cost of their travel is \$7,000. The annual saving to the company itself is \$3000, making an aggregate of annual saving equal to \$10,000. *Ten thousand dollars per annum* is equivalent to a capital of at least \$166,666 at the legal rate of six per cent., and that is as much as money in an ordinary season will, and ought to be worth. The facts in the matter will then stand thus:

Saving in cost of road,.....	\$30,000
Amount of capital equivalent to annual saving on freight and expenses,.....	166,666

Total saving,.....\$196,666

The total value, then, of one mile saved in the length of a railroad is equal to nearly *two hundred thousand dollars*, in actual cash capital to the country. In other words, a road between the same termini 101 miles in length is *worth* two hundred thousand dollars less than a road between the same termini only 100 miles long. Astonishing as this result may be, it is nevertheless true, and every day's experience is demonstrating it more and more clearly.

But there is another point of interest: we said in the fourth proposition that it was a saving to the world of a vast amount of time. Take, for example, the Little Miami Railroad; there were carried, during the last year, over this road, 322,422 passengers, a saving of one mile in length would be three minutes to each. Three minutes each to 322,422 persons makes an aggregate of 967,266 minutes, or 16,121 hours, or 1,612 working days of 10 hours each. The time *wasted* to the passengers running this extra mile, then, would be equal to over *five years* of 313 working days each—and this irrespective of the time lost by the employees of the company. Now, \$1000 per annum is not too large an estimate to put on the time of the merchants and traders who form the bulk of those that travel. Five working years are equivalent to \$5,000. The loss of time may therefore be estimated at \$5,000 per annum, which is equivalent to a capital of \$83,333. This amount added to the aggregate of \$196,666, as before, gives \$279,999, or adding in fractions, \$280,000 as the penal-

ty for increasing the length of road the distance of one single mile.

In view of such results as this, who shall say, it is *only* a mile. That little *only* that is unnecessary, takes from the wealth of the world enough real capital to make *ten times* its length of that which is necessary and which would be productive and useful. It is a waste of energy and means, sinful in extreme, and which will unquestionably open the door, at some future day, to successful and *economical* competition.

#### BANKS AND BANK INVESTMENT OF THE UNITED STATES

From a report of the Secretary of the Treasury of the United States, under date of Feb. 27, we glean some interesting items in regard to banks. There are at present 1,163 banks, representing a capital of \$332,177,288. The average capital of a bank in this country is therefore about \$285,000. This bank capital is further augmented by \$190,400,342 of deposits. The banks afford loans and discounts to the amount of \$576,144,758. The circulation of these banks is \$186,952,223, and the specie on hand is \$56,944,546. In our issue of Nov. 16, 1854, we estimated the bank circulation at \$183,958,358. The report of the Secretary shows therefore the reliable nature of the information on which we based our estimate. There is also another point worthy of consideration. It cannot be doubted that our banking institutions as a whole, are in a sound and safe condition. The recent storm has been too wide-spread and terrific to leave any room to doubt the general solidity of the foundation on which our banks are based. Those that could be affected by the panic or credulity or malice of others, have been dragged down, and all of these have been found to be institutions that were either lame in the outset, or that would soon have shown the ill effects of bad management, irrespective of the financial revulsions of the year. We may then assume that as a whole, the banks of our country are sound. What now is the proportion of specie to circulation, necessary to insure a safe institution? The answer is found in the report of the Secretary:

Circulation.....	\$186,952,223
Specie.....	56,944,546

or less than one-third, and that too in a year when greater and more unexpected demands were likely to be made on any and every institution than is in the ordinary course of events.

But to proceed, New York has the highest number of banks, and the largest amount of capital employed, having

Banks.....	328
Capital.....	\$83,773,288

New York as a commercial state really needs and possesses a banking capital full four times as large as any state in the Union except Massachusetts.



Next to New York in amount of capital and number of banks is Massachusetts, viz :

Banks.....	143
Capital.....	\$54,492,660

Massachusetts in her manufacturing and commercial interests also employs a capital far greater than the other states. And this is one reason why New York and Massachusetts will for a long time remain in advance of their neighbors. They have *surplus capital*, and know how to use it in the proper encouragement of the arts of commerce and manufactures. Next to New York and Massachusetts, is Louisiana with a capital of \$20,177,107. And lowest in the list is Mississippi, with a banking capital of only \$240,165. The reason for this small amount will be readily perceived; without any large shipping or manufacturing town, Mississippi is principally an agricultural state, and as such presents no inducement for the profitable employment of her own or other people's capital. Hence she has only one bank, and that of a capital below the mediocrity. But another interesting question may arise, what is the amount of accommodation accruing to the business world from the capital thus invested? The total bank capital is as before, \$332,177,288; loans and discounts, \$576,144,758.

The proportion between these totals is about a general one, but there are some glaring exceptions: for instance,

PENNSYLVANIA HAS	
Capital.....	\$19,864,825
Loans and Discounts.....	48,641,393

DELAWARE HAS	
Capital.....	\$1,393,175
Loans.....	3,048,141

In these two states the loans are nearly three times the capital stock. On the other hand,

ILLINOIS HAS	
Capital.....	\$2,513,790
Loans.....	316,811

GEORGIA HAS	
Capital.....	\$13,413,100
Loans.....	11,648,559

Both these conditions are such as ought not to exist. In the one case there is not banking capital enough to accommodate the commercial, manufacturing and mining interests; and in the other, there is not sufficient of these interests to employ the capital that legitimately belongs to the region.

#### RECIPROCITY AND LUMBER.

We copy from the *Montreal Commercial Advertiser*, a few remarks on this subject. They are sufficiently clear to speak for themselves.

"The absurdity of Commercial Treaties being concluded by any but commercial men is exemplified by the interpretation of the Reciprocity Treaty with the United States. The United States Secretary of the Treasury has ruled in General Regulations, No. 44 :

That the several articles to be admitted without the payment of duty, are, in most instances, specified with sufficient clearness. It is conceived, however, that to obviate difficulty or misconception, it becomes proper to

state that in regard to the class of woods as given in said enumeration under the title of "timber and lumber of all kinds, round, hewed, and sawed, unmanufactured in whole or in part," the following specified articles, decisions in respect to all of which, with the exception of the article laths, have been heretofore made by this department under the existing tariff act, are to be considered as *manufactures of wood*, and therefore not admissible to free entry, namely: beams, boards, planks, joists, shingles, laths, lasts, staves, hoops, headings, masts, spars, knees, canes, palings, pickets, posts, rails, rail-tips, or any other articles of wood, entered under the designation of timber or lumber, or otherwise, if fully manufactured in whole or in part, by planing, or any process of manufacture other than hewing or sawing.

"By which interpretation, all planed lumber will be subject to duty as heretofore, and the greater part of the advantage to be derived from the Treaty is lost to Canada, from a want of sufficient clearness of description.

"We do not, however, concur in the interpretation of the Secretary. The rule of construction is, to apply the most liberal reading. Unmanufactured in whole or in part means something more than wholly unmanufactured. We deduce from the expression, that it comprehends all woods, and manufactures of woods, which require the expenditure of labor to fit them for their ultimate destination. Planks and boards, planed and grooved, are as much raw material as bricks, chair-stuff, table legs, bed posts, and articles of this character, requiring to be fitted and finished, are in the same category.

"This question is so important, that unless our Government can obtain from the United States that recognition of a liberal construction to which we are entitled, the better plan would be to repeal the Act giving effect to the Treaty at once.

"We expected to treat with legislators, men of liberal views, and not to drive a pedlar's bargain, and if the Government of the United States condescends to act like a huckster, the best plan for Canada is to avoid any dealings with it."

The lumber trade of Canada with the United States has within a few years grown to an amazing extent. Canada is one of the principal sources of supply for the principal markets of New York and its neighboring states. The lumber is cut in the forests on the St. Lawrence and the northern shores of Lakes Ontario and Erie, and shipped by the river, lakes and canals to Albany, and there distributed. The following statement of receipts by canal at that port will give some idea of the magnitude of the interest:

1853.	
Boards and Scantling.....	393,726,673 ft.
Shingles.....	27,587 M.
Timber.....	19,916 ft.
Staves.....	128,666,740 lbs.

This is the trade of a single city, a great portion of which comes from Canada. We do not wonder therefore that our northern neighbors are anxious for a liberal construction.

## Railroads.

### THE OHIO AND MISSISSIPPI RAILROAD—ITS PROSPECTS.

This great work has been struggling for the last six or eight months, through great difficulties,—so great that its friends almost despaired of its immediate completion, and its enemies (not a few) put on the air of exultation. Both were, however, premature. This work is too great and important to the vital interests of Cincinnati, and of the West, to be abandoned, or even delayed, for want of aid, at the eleventh hour. The city of Cincinnati has given that aid, by the purchase of an extensive and valuable wharf property, which the company had purchased, but does not need. This wharf is some 3,500 feet in length, and the city advance its Bond for \$500,000. This will about finish the *grading and bridging* to Vincennes; while for the iron, arrangements have been made which are thought sufficient. There is, therefore, a fair prospect that the work will now advance to immediate completion. It is expected to be complete during the next winter.

In the meantime, we take this occasion to answer certain questions which have been addressed to us, as to the financial condition of the road.

1st. The Western section extends from Vincennes to St. Louis, and is about 145 miles in length.

2d. The eastern section extends from Vincennes to Cincinnati, and is about 192 miles.

These two sections, though perfectly united, by contract and interest, are constructed by two corporate companies. The western division being very nearly constructed, and not standing specially in need of aid, has not been obstructed by financial difficulties. The financial condition of the eastern division, from Vincennes to Cincinnati, is as follows, viz :

1. Stock Subscription.....	\$2,100,823
Paid in.....	1,932,823
Uncollected.....	168,000
2. First Mortgage Bond.....	2,050,000
Second Mortgage Bond.....	1,500,000
Cincinnati Loan.....	600,000
Aurora ".....	63,000
3. Amount expended on the Road, including all accounts.....	6,391,332
4. The amount required to complete this Division is as follows:	
Grading, Masonry, &c.....	\$649,654
Iron, laying, &c.....	758,000

Aggregate, \$1,407,654

The amount required for grading is expected to be reduced \$150,000, by certain economical arrangements.

From the above statement it appears that the total cost of the road, when in running order, will be \$7,798,986.

But, there will ultimately be required machinery, Depots, and many smaller matters, which will raise it to \$8,500,000.

On the St. Louis division the debt is—

First Mortgage.....	\$950,000
Second Mortgage.....	1,500,000

Aggregate, \$2,450,000



It will thus be seen that the total Bonded Debt will be \$6,000,000.

The company (eastern division) has on hand, independent of the wharf property, now sold, the following assets, viz:

County Bonds of Knox, Davies, Ripley, and Jennings Counties, (Indiana).....	\$317,000
First and second Mortgage Bonds on hand.....	402,000
Notes and Subscription.....	213,462

Aggregate, \$932,462

This may be set off against the floating debt, and the Iron. When the machinery, Depots, &c, are all bought, the total cost of the Road from Cincinnati to St. Louis may be set down at \$14,000,000, or \$40,000 per mile.

#### NEW ORLEANS AND OHIO RAILROAD.

This road, better known as the Paducah Branch of the Mobile and Ohio Railroad, runs from Paducah through the western part of Kentucky to the line of the Mobile and Ohio Railroad, in the north-western part of Tennessee. The whole line of the road is under contract, except about three miles; and there are parties ready to take this at favorable rates.

"The terms of these contracts are favorable to the Company. Payments are 50 per cent. cash, 30 per cent in bonds of Paducah and McCracken County, at 90 cents of their par value, 20 per cent. in stock of the Company at par."

The following is the statement of the progress of the work, as made in the report of the engineer Jan. 18, 1855:

Earth work, Paducah to	
Mayfield.....	390,000 yards cost \$80,439 00
Masonry.....	714 perch " 6,519 00
Earth work, Mayfield to	
State line.....	19,465 yards " 3,932 00
Grubbing and clearing, Paducah to Feliciana.....	39½ miles " 11,204 00
Cross ties delivered.....	11 " " 6,471 00
Track laid.....	26-10 " " 1,152 00
Lumber, buildings, cars, shops, well, and engineering expenses.....	7,314 00

Total amount of work done.....\$117,031 00

"The present condition of the work is such, that with the full collection of the private subscriptions in Kentucky, the interest upon the town and county bonds, and such monies as may be raised upon the bonds without sacrificing them—provided the interest be fully raised—we can complete the road to Mayfield in the autumn of this year with ease, as the following estimate will show:

Grading to be done to complete Road to Mayfield, 2 11-100 miles, at cost of about.....	\$ 6,000 00
Masonry and bridging.....	16,000 00
13½ miles of cross ties.....	8,000 00
Laying track.....	8,800 00
Sundry miscellaneous expenditures for iron work, water fixtures, and Engineering expenses.....	5,000 00
Total.....	\$43,800 00
An average of 40 per cent. of this amount will be in stock and bonds.....	17,520 00
Total amount in money.....	\$26,280 00

"Whilst this is being expended to complete tracks to Mayfield, ten thousand dollars in

money, in addition to stock and bonds engaged to be taken in payment for work, will complete the graduation to the Little Obion river, six miles beyond Mayfield; and the heavy points between said river and the State line can be carried on so as to complete the whole to the State line within twelve months, by using there in the next six months, ten thousand dollars in money, whilst the whole length of line in Tennessee can be prepared for iron from the private subscriptions for the road in that State, amounting to between eighteen and twenty thousand dollars. Thus a sum of about fifty-five thousand dollars in Kentucky, will in the next eight months put your road running to Little Obion river, and forward the grading in a satisfactory manner throughout the south half of the line.

"To accomplish this without loss to the stockholders, all resources should be applied that can be raised without forcing a sale of the bonds. These latter are the property of the company, belonging to the private stockholders, as well as to the citizens of the town and county issuing them, whilst the private subscription in like manner belong to the town and county. All subscribers are in proportion to their respective subscriptions partners in the company, and all monies, stock, and bonds, are common property. A sacrifice, therefore, of bonds, is a common loss, to be shared by all subscribers. But there is no need of submitting to a sacrifice. The private installments now due, the interest on the bonds, and some twenty thousand or more that can be borrowed upon the bonds, in bank notes for circulation, will furnish all the means that may be necessary to accomplish in the next eight months all that I have indicated. The Mobile and Ohio Company have iron at New Orleans for twelve miles, and are now in London, by their President, to secure the remainder for your road, as well as their own main line.

"The iron at New Orleans will be sent up by the high water of this winter, and if a hearty response be given to the views herein expressed of the best course under existing circumstances, tracklaying will be resumed, and an engine and more cars sent on in time to meet the wants of the road."

The following is a statement of the financial condition of the New Orleans and Ohio Railroad Company, as appears from the account of L. M. Flournoy, Treasurer, Jan. 1, 1855:—

To amt rec'd on individual subscriptions.....	\$35,105 35
" from sale of bonds.....	7,600 00
" Interest on town and county bonds..	10,406 28
" Bonds delivered to contractors as per contract for work.....	21,700 00
" Loans to company.....	30,700 00
	\$105,511 63
By cash requisitions for work....	\$7,973 15
" Right of way and depot.....	1,965 00
" Requisitions in bonds to contractors.....	21,700 00
Interest and exchange account.....	2,506 46
Balance in treasury.....	1,467 02
	\$105,511 63

#### INDIANA CENTRAL R. R. ANNUAL REPORT.

We have received the annual report of this Company, made to the Stockholders under date Dec. 31, 1854.

At the close of the last year the line had been but recently opened, and much of it then unballasted, and difficult and expensive to operate, and from the nature of the material composing the road-bed it was impossible to ballast the track at any reasonable cost until the opening of dry weather in the spring. During the past summer the ballasting of the entire line has been completed, except the surface ballast on a small portion of the line. But the entire track is in good order, and can be safely and economically operated; as much so as most lines that have been many years longer in operation.

During the past summer and fall the company have erected a large and commodious freight house at Indianapolis, and also a very substantial and commodious engine house and turn-table at the same place; and have also constructed several station houses, water stations, side tracks, and other improvements, so that a very small sum only will have to be spent the ensuing year for such purposes, to enable the Company to operate the line profitably.

In the month of August last a modification of the agreement between this Company and the Dayton and Western Railway Company was agreed upon, by which this Company is to continue to run the entire line between Indianapolis and Dayton for twenty years, the Central Company to furnish two-thirds of the rolling stock and machinery, and the Dayton and Western Company one-third, and either Company furnishing a larger amount than the proportion agreed upon, to be allowed an equitable sum for such excess. The general expenses of operating the two roads to be deducted from the gross earnings, and then the net earnings to be divided; thirty per cent. to the Dayton and Western Company, and the remaining seventy per cent. to this Company. This agreement is subject to be dissolved at any time by either party on six months notice to the other. The wisdom of a just arrangement with the Dayton and Western Company for running purposes, is not doubted. The distance run is a proper one for an engine and set of hands to run without stopping to examine and clean up the engine and cars, and it is much more economical for both Companies than for each to run its own train over its own line only, and obviates delays to make proper connections.

During the past year, the division of the Dayton, Xenia and Belpre Railway, between Dayton and Xenia, has been opened, thus giving a direct connection with Columbus, Ohio. The Central Ohio line has also been opened throughout its whole length, giving a direct railroad line to Baltimore, Washington City,



Philadelphia and New York, and one that is shorter than any other railway line now opened for travel to those cities; and in a short period the Steubenville and Indiana Railway will be opened from Steubenville on the Ohio river, to Newark on the Central Ohio Railroad, and doubtless within the coming year the Pittsburgh and Steubenville Railroad will be opened, forming an entire line between this and Pittsburgh, Philadelphia and New York, and forming much the shortest line in operation to any of those cities.

During the past year, also, the section of the Springfield, Mount Vernon and Pittsburgh Railway, between Springfield on the Mad River and Lake Erie Railway, and Delaware on the Cleveland and Columbus Railway, a distance of fifty-three miles, has been opened for business, and also the section of the Dayton and Michigan Railway between Dayton and Piqua, a distance of thirty miles, has been opened. All of these lines must contribute materially to the business of this road, but the late periods at which they were opened, has prevented the benefits to be derived from them from being felt to the extent that will occur within the ensuing year.

The following figures from the report of the Superintendent will show the working expenses and receipts of the road.

MILES RUN.	
Passenger Trains.....	138,420
Freight do .....	48,184
Gravel and other Trains.....	25,986
Miles.....	212,590
Expenses of Machine Shop.....	\$11,746 95
do Locomotive Power.....	56,726 45
Train Expenses.....	24,734 71
Station do .....	29,140 33
Office do .....	12,827 39
Total.....	\$135,175 83

The following table exhibits the cost of the road and rolling stock for 1854.

Cost of road.....	\$1,428,579 81
Number of miles.....	77
Cost per mile.....	\$18,565 97
Rolling stock.....	240,510 86

The following is a table of earnings since the opening of the road:

	1853.	1854.
January .....		\$18,629 84
February .....		19,081 15
March.....		29,070 46
April.....		25,401 31
May .....		27,010 81
June.....		27,102 54
July.....		22,199 43
August.....		27,311 29
September.....	\$3,470 70	29,958 56
October.....	9,471 23	34,823 49
November.....	12,537 06	31,958 43
December.....	17,129 01	28,852 85
	\$42,608 00	\$321,400 06

It is here seen that the increase in the earnings of the road from January to December 1854 was over \$10,000 per month—nearly 60 per cent.

Coal is said to have been found in west Tennessee.

## CHARLESTON AND CINCINNATI BY RAILROAD.

We have received the following interesting communication from one of the assistant engineers on the proposed route, and publish the letter entire, as it is fresh from the region and reliable in its data.

TAEWELL, CLAIBOURNE CO. E. TENN. }  
March 27, 1855. }

EDITOR RAILROAD RECORD:

Dear Sir:—The great problem of a railroad from Cincinnati to Charleston has been solved. Col. Robert L. Owen, Chief Engineer of the line has demonstrated that fact.

The grade of the road is no more than 68 feet per mile, the distance through the state is about the length of the travelled road.

This road will develop the great mineral region, as there is abundance of iron, coal, copper, lead, and other minerals on the line.

It is the most healthy country in the Union, clear streams, pure air, and every thing conducive to the longevity of man.

Col. Owen would be glad to have a copy of the Record containing a description of Copeley's Axle. As soon as his report is ready it shall be sent to you for publication. I know that Cincinnati will feel a deep interest in this line.

I am engaged here as principal assistant. Col. Owen has distinguished himself in proving the practicability of this undertaking.

## LEXINGTON AND DANVILLE RAILROAD.

The president of this road, Gen. Leslie Combs, presented its claims upon the citizens of Cincinnati in an able and interesting speech last Thursday evening. At the meeting there was a pleasant re-union of some, who twenty years ago were enlisted for the enterprise of connecting Cincinnati and Charleston on the Atlantic, and though the veteran soldiers have grown grey in the service, it is quite likely that they will yet see their life's wish consummated. The General's speech was highly interesting, and was listened to with attention. Gen. Combs was followed by Mr. Mansfield and others, and so great was the interest manifested that it was determined to hold a second meeting on the succeeding evening, and resolutions were passed expressive of the sense of the meeting. On Friday evening, after listening to several interesting addresses, the meeting empowered Judge Hall, the chairman, to select a committee of seven to solicit from our merchants and manufacturers "material aid" in the shape of stock subscriptions. A number of subscriptions were voluntarily made on the spot, and the effort has already assumed such an aspect that it is altogether probable that Cincinnati will do all that is asked of her.

The earnings of the Grand Trunk R. R., Canada, for the week ending march 17, 1855, were \$15,557 71½. Miles open 292.

## WHEELING AND THE RAILROADS.

The difficulties between this city and the Railroad Companies have been heretofore of a serious nature, and not productive of good feeling on either part. That they have been augmented by rash and ill-advised measures, there can be no doubt. This is a matter of regret, as such action often renders reconciliation impossible. We are glad to see, however, that the citizens of Wheeling are beginning to interest themselves to obtain a peaceful adjustment of their difficulties. The following resolutions were adopted by a meeting of citizens on Mar. 31:

"WHEREAS, The citizens of this Ward, in common with their fellow citizens in this city, feel a deep interest in the success of the several railroads terminating at this city, and being especially concerned in respect to the probable result of the difficulties at present existing between the city and the Baltimore and Ohio Railroad Company, and the city and the Central Ohio Railroad Company—and whereas, in the judgment of our most judicious citizens, the interest of the city and of the railroad companies, named above, are identical, and it is believed that the attitude of antagonism in which these parties now stand is unnatural, and caused by sectional influence and private speculation, we are therefore persuaded that a true reflection of the will of the people of the city, by the council and railroad committee, would meet with a cordial response and co-operation on the part of the roads named, so as to harmonize these important interests, which by bad management have been made to conflict so seriously, and to affect so materially the prosperity of the city, and the success of the roads. Be it, therefore,

"Resolved 1st. That we respectfully request the Railroad Committee, already constituted, to prepare a statement of the facts in relation to the negotiations heretofore between the City authorities and the above named Railroad Companies, in order to present them in the form of a report to a general meeting of the citizens of Wheeling, to be held at the Court House, Saturday evening, the 14th of April next.

"Resolved, 2d, That we recommend to our fellow citizens the adoption of such measures towards the Baltimore and Ohio, and the Central Ohio Railroad Companies, as shall afford these roads every reasonable facility for bringing the business of their respective roads into the limits of the City, so that our people may enjoy the advantages to be derived from the business of those roads.

"Resolved, 3d, That we deem it expedient that the privilege be extended to the several railroads terminating in this city, to construct, and use temporarily, until a railroad bridge is erected, any works, switches, side tracks, platforms, or other fixtures that may be ne-



cessary and convenient for them, on the grounds of the city, for the speedy and economical transfer of freights from Eastern to Western roads, provided such works do not obstruct the streets, alleys or wharves of said city.

"Resolved, 4th, That the foregoing preamble and resolutions be published in the city papers."

#### BALTIMORE AND OHIO RAILROAD.

We learn from the *Baltimore Patriot*, that a meeting of the stockholders in this road, was held in the early part of April in the city of Baltimore, to consider the subject of the proposed sale by the city of Baltimore of the stock which that city holds in the road. The following resolutions were adopted and are expressive of the state of facts.

"WHEREAS, A resolution has been passed by the Mayor and city Council of Baltimore, and addressed to the President and Directors of the Baltimore and Ohio Railroad Company, the purpose of which is to ascertain on what terms the said company or its stockholders would be willing to purchase the entire interest of this city in said road, and,

"WHEREAS, This meeting has been called for the purpose of ascertaining the views of said stockholders in order that their representatives in said road may be prepared to conform to their wishes in this behalf; therefore,

"Resolved, That the Stockholder Directors in the Baltimore and Ohio Railroad company, be, and they are hereby authorized and empowered, to vote for purchasing the stock of the city of Baltimore, in the Baltimore and Ohio Railroad company, for an annuity to be paid semi-annually, equivalent to the sum of four per cent. upon the par value of her stock in said company, the said city in the event of her acceptance of said offer, to withdraw her directors, with the privilege of reinstating the same, should said annuity be at anytime outstanding for a period of sixty days (60 days,) but not otherwise—said annuity to be given to run from the period of said directors.

"And be it further Resolved, That in the event of the refusal of the City Council to the above proposition, the private stockholders now represented in this meeting agree to sell to the city, on the same terms, and to withdraw their Directors on the consummation of the arrangement, if, and when requested by the city so to do; and that the Stockholder Directors be instructed to negotiate accordingly."

It is altogether probable that the proposition will be accepted, and that the road will pass under the entire control of its private stockholders. We think it is the general experience that corporations managed for private interest pay better than those managed for the public.

#### SOUTHERN RAILROADS—THEIR TRUE OBJECT.

The Cincinnati *Railroad Record* makes a remark which we would do well to keep in mind—that the natural and great course of commerce is between the North and South,—in short, between climates where there is a marked distinction in the natural products. The remark is made with reference to railroads in Kentucky, which look to a connection of that State, on the North, with the whole valley of the Ohio, and on the South with the Gulf of Mexico and the Atlantic Ocean. In this connection, Charleston is a leading point, and in the direction of it has a controlling voice.

We take it for granted that all men have by this time given up the hope that the Southern Atlantic cities can be made the thoroughfare of the general travel from New Orleans to New York. We have lost it already, and we see no means of recovering it. There is a shorter and cheaper route, and that settles the question as to travel.

But in regard to freight it is a question of market. As to all that we consume in South Carolina, there can be no possible doubt that the cheapest transportation will be the most direct; and this involves the supply of the shipping, as well as of the city and the large demand of the Planters. Hence our North-Western Railroad connections are the opening to us of a sure and speedy conveyance of all the articles which they produce in natural abundance and cheapness, and the conveyance back of all the natural products of the South. The Rice, Cotton, Sugar and Tobacco of the South, are exchanged for the Beef, Pork, Corn, and Flour of the North-west. All this, without reference to the different manufactures of the two sections, which will afford a vast variety of articles of exchange.

To the South-Atlantic and Gulf Railroads, there are two objects to which they must especially bend their energies, and on which they will absolutely depend for their permanent prosperity; 1st, the conveyance of the produce of their own particular section to its market; and 2d, the exchange of produce between the North-West and the South. The conveyance of passengers will always be to them a comparatively trifling business. The great body of it, so far as it is mere travelling, will soon be carried through an interior route, quite out of our cognisance. But there is such a thing as a current of travellers, whose business may direct them to Charleston; and just in proportion as our city becomes a centre of trade, will this current of travel gain sure direction and augmented volume. It is by making Charleston a great market and a great commercial outlet, that we may hope also to gather toward it a reasonable part of the great current of travel that pervades the country. All who have business in Charleston will come here by the shortest route, and it is important to us to increase in every possible way the breadth of country whose business connections can be made most easy and speedy with our city.

Evidently for these objects our most interesting connections are through Tennessee and Kentucky, with the North-west. Between the extreme regions thus brought together, the exchange of products embraces almost the entire range of their mutual industry, while, in the intermediate country, wide, fertile, diversified and ever growing in resources, there will be an infinite variety of exchanges, and an ever increasing current of travel, which always accompanies a growing commerce."

We repeat that Charleston must look for her future prosperity to the Railroads which seek her as a market and an outlet, rather than those which vainly promise to make her the thoroughfare of travel to other markets. If the city is anything, it is to be because there is buying and selling here as a natural and advantageous point of exchange and shipment. When we surrender this advantage, we shall give up the real source of our strength. Hence we cherish the hope of finishing these North-Western connections. Charleston is the natural market for a vast region to the North-west and West, and if we lose the advantages of our position, it will be because we show ourselves inferior in enterprise and resistance to rival sections of the country.—*Char. Mercury*.

#### INDIANAPOLIS AND CINCINNATI R. R.

The earnings of this Road for March, 1855, are:

Passengers.....	\$15,713 06
Freight.....	16,413 58
Express and Mail.....	1,148 48

Total.....\$33,275 12

For March, 1854.....27,902 72

Increase.....\$ 6,072 40

For first quarter of 1855.....\$25,980 29

" " " " 1854.....61,655 78

Increase in 1855.....\$24,324 51

The increase is over 39 per cent. of the earnings of the preceding year.

#### TERRE HAUTE AND RICHMOND R. R.

The Receipts of this Road for March, 1855, are:

For Passengers.....	\$13,371 01
" Freight.....	8,212 28
" Mail and Express.....	1,088 69

Total.....\$22,671 98

TERRE HAUTE AND ALTON R. R.—The subscription for the sale of \$1,000,000 of the 8 per cent. convertible second mortgage bonds of the T. H. & Alton R. R., has all been taken. The road is progressing rapidly, and everything is favorable for its early completion.

The Alton railroad bridge is again as good as new. Passenger and freight trains pass over as safely as if no accident had occurred. Passenger train leaves at the usual time—7½ A. M. The track is laid to Charleston, but for the present, passengers are taken as far as Embarrass river.—*T. H. Courier, March 31*.

RAILROAD MATTERS.—The contract for the completion of the Peoria and Oquawka road west of this city, has been awarded to Messrs. Kellogg, Moss, Clark & Co. The terms, we learn, are very favorable to the company and the city; and we congratulate our citizens and the friends of the road generally upon the brightening prospects of this great enterprise.—*Peoria Dem. Press*.

#### FLORIDA AND ALABAMA RAILROAD.

It is computed, says the Greenville Alabama, that some two thousand hands are hard at work on the Alabama and Florida Railroad, between Montgomery and that place, and the working force is daily increasing.

We expect in a few months from now to be able to give a similar announcement of the work going on between Pensacola and the Alabama line.—*Flor. Dem.*



## Miscellaneous and Mechanical.

### MOSELEY'S TUBULAR BRIDGE.

It is a great desideratum to obtain a bridge for railroads and other purposes, which shall combine the elements of strength, durability, lightness, portability and beauty—a bridge which can be applied in any situation, and which shall be reliable under all circumstances—and this desideratum is only to be attained by a scientific combination of the most tenacious materials, in the most suitable geometrical figures.

The nearest approach that we have seen to this, is a bridge recently built at Covington, Ky., by Gen. Thos. W. H. Moseley upon a plan for which he has taken measures to secure a patent. The bridge, or rather the supporting part, consists of tubular arches of wrought iron, spanning the space from pier to pier; suspended from these arches is a level roadway. The tube forming the arch is of triangular form, the section being an isosceles triangle, and the angle of the apex about 35 degrees. This tube is made of boiler iron of suitable thickness, 1-8 inch for small bridges, and double; the inner plate beginning at the centre of the outer one, thus at the joints instead of the lapping over, the plates abut against each other and are held fast by being rivetted to the parallel plate; in this manner the whole forms a tubular arch of iron double thickness, nearly as solid as though the tube were formed of a single plate. The faces of the triangular tube in the small bridge we saw, are 9 inches wide. This however is a matter of calculation, the size of the tube and thickness of the iron being both proportioned to the span of the bridge and the maximum of load. Gen. Moseley has just completed a bridge of 60 feet span. The arch has a spring of 12 feet, being a segment of a circle 95 feet in diameter. The roadway is 19 feet wide, sufficient for two tracks. There are three arches such as described, one at each side, and one in the centre. The bridge proper, including the arches, the iron beams to support the roadway, and iron braces between arch and beam, weighs *three and one-half tons*. It was tested recently with a weight of 55 tons and there was no visible deflection. The bridge is calculated to be capable of sustaining a weight of 200 tons. The whole forms a beautiful structure of great strength and very cheap, portable on account of its light weight. The arches can be made in segments of any size, and transported and put up anywhere at little expense, the roadway being much the heaviest part of the bridge.

This bridge is the first structure of the kind, but will not be the last. The principle brought in exercise is a very simple one. It is an arch, not depending, as in the stone

bridge, upon its own weight or that of the superincumbent mass to keep it in position; but spanning the chasm in light and airy proportions, and yet of greater strength and durability, than the heaviest structures of masonry, and of little weight and of wonderful solidity.

### MILLER'S STEAM BREAKER.

It has been a great desideratum to obtain a perfect brake, one which can be applied at a moment's—or rather a second's notice, and which shall do its work effectually on every car and every truck on a train.

We have been interested in reading the account given in the *Detroit papers* of a trial of a new brake designed to do this, and copy from the *Evening Tribune* the description of the trial. The experiments were witnessed by a number of gentlemen forming a committee, and the statement is signed by their names:

The undersigned having this day witnessed an experimental trial of Miller's Steam Brake, applied to a train of five cars, viz: one baggage, one second class and three passenger cars, on the Michigan Central Railroad, drawn by the locomotive Grey Hound, of twenty-eight tons, with 6 feet 2 inch drivers, whole weight of train 104 tons, and brakes were applied to 20 pair of wheels, under the cars only, and not on wheels of either locomotive or tender, would state that it gives us great pleasure to testify to the following facts:

1st. That on the first trial, with the train moving at the velocity of 30 miles per hour as per statement of engineer, the train was brought to a perfect stop in 700 feet, taking 20 seconds of time.

On the second trial, with train moving 40 miles per hour, it was brought to a stand still in 945 feet, and 26 seconds of time.

On the third trial, which was accurately kept in every particular, the train was backed down 2 miles, and coming up ran the last mile in 1 minute and 25 seconds. It was brought to a full stop in 1,006 feet, taking 28 seconds of time, the train not running over three miles per hour for the last 300 feet, and during this time but two pair of wheels slipped all the time, and one pair for 100 feet, which the inventor proposes to obviate entirely, the levers having been improperly adjusted on those wheels.

The engineer in charge of the train states that he can stop the same train at a speed of 25 miles per hour by reversing his engine in running 300 feet.

In view of these facts we would respectfully state—

1st. That we believe this to be one of the most useful and life-preserving inventions of this inventive age, inasmuch as it gives the engineer entire control of the train, and will greatly tend to reduce the number of collisions, and so diminish the severity of the remainder as to render them of no practical importance as hazardous to life and limb.

2d. By applying all the brakes simultaneously it prevents the unpleasant collision of the cars in the train, noticed under the operation of the hand brake.

3d. It brings a uniform pressure on all the brakes, thus diminishing the amount of injury to Wheels and Rails, by distributing it through the Train.

4th. It will enable the Railroad Company

to dispense with all the brakemen to a train. In answer to the question as to what would be done in case the train broke apart, the inventor requests us to state that this difficulty is obviated by inserting a stop cock at the end of each car, which will close on severing the connection.

We cannot conclude this statement without earnestly recommending its adoption by Railroad Companies, fully believing that as an economical and life-saving appendage, it is unequalled, and that its advantages will amply repay all the expense of the attachment of the same.

To Mr. Miller we tender our congratulations upon the success of his invention, which we consider practically determined, and expressing the hope that he will derive as much benefit as the public will comfort and safety from its application.

### FUEL—A NOVEL KIND.

A certain wise man is represented as having said that there is nothing new under the sun. We freely confess, however, that the information, contained in the following paragraph copied into several journals from the *American Exponent*, is new to us, and would have been more interesting if the chemical principle, claimed to have been brought into exercise, were more fully explained.

"Dr. Hooker, of New Orleans, has a chemical preparation which he mixes with mud, as a bricklayer would mix lime with sand, and, after becoming dry, it makes a most excellent coal!—coal that easily can be made and sold in that market, for thirty cents per barrel, if made by hand; or even fifteen or twenty cents per barrel, if manufactured by machinery.

"We should not have believed this had we not seen it burn ourselves. It lights easily; there is no offensive smell emitted; but little smoke, and but very little dust or cinders.—What little cinders are left, are good for cleaning silver, brass or other similar metals; and the ashes make a tolerable sand paper and is also good for scrubbing floors, &c. The patentee also assures us, that it will not only burn well in grates (where we saw it burning) but in stoves, furnaces for smelting, and making steam. In fact it can be put to all the practical uses of wood or coal, except for the purpose of generating gas. Of one thing we are satisfied, the mud burns, emits an excellent heat, and makes a cheerful fire.—Whether the patentee can do all he says, remains to be seen."

The economical effect of this invention, if we may credit what is here claimed, cannot be too highly appreciated. Fuel at fifteen cents a barrel or six cents per bushel, will reduce the *working expenses of the world* to an incredible extent, will even make steam power cheaper than water power in the same locality. We shall look with interest for further developments, and in the meanwhile hope we may be favored with the rationale of the process.

☞ The copper area in Polk Co., Tenn., is about three miles long and two miles wide. Within this space eight or nine mines have been opened, from which, alone might be raised three millions of dollars' worth of ore annually, if only there could be provided the means of transporting it to market.—*Dispatch*



## TABLE OF RAILROAD BONDS, WITH MARKET VALUE.

CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT.	DUE.	OFF'D.	ASK'D.
Alabama and Tennessee	1st mortgage, convertible till 1872.	7	1872		90
Baltimore and Ohio	Transferable. Taxed	6	1885		79½
Do do	Coupons. Not Taxed	6	1875		
Do do	" " " "	6	1880		
Do do	" " " "	7	1860		
Do do	" " " "	6	1885		
Bellefontaine and Indiana	1st mortgage, convertible	6	1866		98
Buffalo and Penn. State Line	1st mortgage, not convertible	7	1866		
Chicago and Rock Island	1st mortgage, convertible	7	1870	94	95
Chicago and Mississippi	1st " " "	7	1862		
Do do	2d " " "	7	1874	55	
Chicago and Aurora	1st " " "	7	1866		
Cincinnati Newcastle and Mich.	Real Estate.			72½	30
Cleveland, Columbus, and Cincinnati	1st mortgage, convertible	7	1859		
Do do	No mortgage, convertible	7	1855		
Cleveland and Mahoning	1st mortgage	7	1861		
Cleveland, Painesville and Ashtabula	2d " not convertible	7	1861		
Do do	1st " convertible	7	1860		
Cleveland and Pittsburgh	1st " 2d sec. convertible	7	1873		
Cleveland and Toledo	1st mort. not conv. 73	7	1863	71½	72
Cleveland, Zanesville, and Cincinnati	1st mortgage	7	1867	75	80
Cincinnati, Hamilton and Dayton	2d mortgage	7	1868	79	80
Do do	1st mortgage, real estate, convertible	10	5 & 10 y's	30	
Cincinnati, New Castle and Michigan	" " " "	8		44½	
Cincinnati Western	2d " " "	7		68	
Cincinnati, Wilmington and Zanesville	" " " "				
Cincinnati, Indianapolis and Chicago	1st mortgage, convertible	7	1862	75	76
Columbus and Lake Erie	2d " " "	7		50	51
Columbus, Piqua and Indiana	1st mortgage, convertible	7	1859	80	
Do do	2d " " "	7	1883	65	65
Columbus and Xenia	Income.	10		72	75
Covington and Lexington	1st " " "	7	1867		
Do do	1st " " "	7	1862		
Dayton and Michigan	1st " " "	10	1864	42	45
Dayton and Western	1st mortgage	7	1862		60
Dayton, Xenia and Belpre	1st mort. guaranty Mich. So. R. R.	7	1862		
Eaton and Hamilton	1st Mortgage,	7		80	81
Erie and Kalamazoo	1st " " "	6			
Evansville and Crawfordsville	" " " "				
Frankfort and Lexington	Pledge of 2d section, convertible	10	1853-6	90½	
Franklin and Warren	1st mortgage	7		61½	
Galea and Chicago Union	1st mortgage, not convertible	6	1875	76½	80
Hillsboro and Cincinnati	Freeland	7		73½	74
Illinois Central	1st mortgage, convertible	7	1866	63½	75
Do do	" " " "	10	1857	80	
Indianapolis and Bellefontaine	1st " " "	7	1860-1	75	
Indianapolis and Cincinnati	Dividend	7		62½	63
Indianapolis and Lafayette	1st " " "	7	1861		
Jeffersonville	1st " not " "	7	1861		
Junction (Ohio)	1st " " "	7	1867		
Do Indiana	Real Estate	10		72	73
La Crosse and Milwaukee	1st mortgage, not convertible	8	1864	77	82
Little Miami	" " " "	6	1863		
Do do	" " " "	7	1861		
Louisville and Nashville	" " " "	7			
Lyons', Iowa, Central	1st mortgage, convertible	7	1873		
Mad River and Lake Erie	1st mortgage, convertible till 1855	7	1855-6		75
Do do	2d " " "	7	1866		75
Do do	Dividend	7	1860		75
Madison and Indianapolis	1st mortgage, convertible after 1853	6	1861		
Marietta and Cincinnati	Domestic Bonds	7	1868	57½	60
Do do	2d " convertible				
Hillsborough and Cincinnati	1st " " "				
Maysville and Big Sandy	1st mortgage, convertible	6	1873		
Maysville and Lexington	" " " "	8	1860	97	
Memphis and Charleston	" " " "	8	1855-6		
Michigan Central	" " not " "	8	1857-8		
Do do	1st " " "	7	1860-90	76½	100
Do do	1st " " "	8	1862		
Michigan Southern	1st mortgage 6s. 1884				
Milwaukee and Mississippi	mortgage on 1st section	10	1858-62		
Mobile and Ohio	1st " on other sections, convert.	8	1864-75		
Nashville and Chattanooga	1st " convertible	6	1873		
New Albany and Salem	1st mortgage, not convertible	7		100%	102
New Castle and Richmond	2d " convertible	7	1867		
New York Central	2d " " "	7	1875	89	90
New York and Erie	1st " " "	7	1883	94½	95
Do do	1st mort. conv	8	1873		
Northern Indiana	1st mortgage, not convertible	7	1861	79	
Do do	1st mortgage Goshen line		1868		
Do do	Construction Bonds				
Ohio Central	1st mortgage, convertible	7	1861	61	
Ohio and Mississippi	2d " convertible	7	1880	62½	65½
Ohio and Indiana	1st " " "	7	1867		
Ohio and Pennsylvania	1st " " "	7	1865		
Do do	Income. No mortgage, convertible	7	1872		
Pacific, Mo	1st mortgage, convertible	7	1866	101½	114
Panama	" " " "	7	1873		
Parkersburg (or Northwestern Va.)	1st mortgage, convertible till 1860	6	1880		
Pennsylvania	1st " convertible	7			
Peru and Indianapolis	1st " convertible	7	1872		
Rock River Valley Union	1st " " "	7	1860		
Sandusky and Mansfield	2d " " "	10	1853-7		
Do do	1st " conv. coupons	7	1861		
Scioto and Hocking Valley	" " " "				
Southwestern, Tennessee	1st mortgage, convertible	7	1865		
Springfield and Columbus	1st " convertible	8	1865-72		
Steubenville and Indiana	2d " do	8	1865		
Terre Haute and Alton	1st mortgage, convertible	6	1866		
Do do	1st " " "	7	1863	87	88
Do do	2d " " "				
Do do	Guar of C. C. & C.		1883		

## TABLES OF RAILROAD SHARES.

The following quotations are not per share, but upon the HUNDRED DOLLARS.

	shares.	off'd.	ask'd.
Baltimore and Ohio	100	44	44
Bellefontaine and Delaware	50		
Bellefontaine and Indiana	50	48	
Belleville and Illinois town			
Buffalo and Pennsylvania State Line			
Central Military Tract	50	47½	50
Central Ohio		88	89
Chicago and Rock Island			
Chicago & Miss., (Alton & Springf'd.)			
Cincinnati, Cambridge and Chicago	10		
Cincinnati and Fort Wayne	100	73	75
Cincinnati Hamilton and Dayton	50	8½	15
Cincinnati, Indianapolis and Chicago	50	10	20
Cincinnati, Logansport and Chicago	50	25	35
Cincinnati Western	100	105	106
Cin. Wilmington and Zanesville			
Cleveland, Columbus and Cin			
Cleveland, Medina and Tuscarawas	100		
Cleveland, Painesville and Ashtabula	50	40	41
Cleveland and Pittsburgh			
Cleveland and Mahoning	50	72	73
Cleveland and Toledo			
Cleveland, Zanesville, and Cincinnati			
Clinton Line			
Columbus and Lake Erie			
Columbus, Piqua and Indiana		82½	100
Columbus and Xenia		32½	35
Covington and Lexington	50		
Covington and Ohio, Va.			
Dayton and Michigan	50		
Dayton and Western	50	20	20
Dayton Short Line	50		
Dayton, Xenia and Belpre			
Detroit and Pontiac			
Eaton and Hamilton	25	25	27
Eaton and Piqua			
Erie and Northeast			
Erie and Kalamazoo		99	
Evansville and Crawfordsville			
Fort Wayne and Mississippi	50		
Fort Wayne and Southern	25	10½	12
Franklin and Warren			
Galea and Chicago Union	100	95	96
Greenville and Miami	50	20	
Hannibal and St. Joseph			
Harlem		32½	33
Hudson River		41	43
Henderson and Nashville			
Hillsboro' and Cincinnati	50	18	25
Illinois Central 10 per cent	100	97½	100
Illinois and Wisconsin			
Indiana Central	50	44	50
Do do 10 per cent	50		
Indianapolis and Bellefontaine	25	50	50
Indianapolis and Cincinnati	50	49	50
Indianapolis and Lafayette	50		
Jeffersonville and Indianapolis	50		
Junction (Ohio)	50	15	17
Junction (Ind.)		12½	
La Crosse and Milwaukee	100		
Lake Erie, Wabash and St. Louis			
Lexington and Frankfort			
Lexington and Danville	50	97	100
Little Miami			
Logansport and Pacific			
Logansport and Marion			
Louisville and Frankfort	50		
Louisville and Nashville	100		
Macon, Georgia	10		
Mad River and Lake Erie	50	34½	36
Madison and Indianapolis	50		
Madison, Indianapolis and Peru	50	20	
Marietta and Cincinnati	50	28	30
Marion and Missisquoi Valley			
Maysville and Lexington	50		
Maysville and Big Sandy			
Memphis and Charleston			
Michigan Central		82	82
Michigan Southern		92	93
Milwaukee and Mississippi			
Mobile and Ohio			
Nashville and Chattanooga			
New Albany and Salem	50	20	20
New Orleans and Ohio			
New York Central		93½	96
New York and Erie	100	51½	52½
Northern Indiana		96	97
Ohio and Indiana			
Ohio and Mississippi	50	32½	35
Ohio and Pennsylvania	50		85
Ohio River and Wabash			
Pacific, Mo			
Panama		101	102
Parkersburg, or Northwestern Va.			
Pennsylvania	50	43½	44
Peru and Indianapolis	25	35	
Sandusky and Mansfield	50		
Sandusky, Mansfield, and Newark	50		
Reading		85½	86
Scioto and Hocking Valley	50		
Southwestern Indiana			
Southwestern, Tenn.			
Springfield Mt. Vernon and Pittsb'gh	50		
Springfield and Columbus			
Steubenville and Indiana			
Terre Haute and Alton			
Terre Haute and Richmond		95	100
Toledo and Illinois			
Toledo, Norwalk and Cleveland	50		



State Bank and Branches.....  
Union' .....  
Planters .....

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	$\frac{1}{2}$	$\frac{1}{2}$ prem.
Boston.....	Sight.....	$\frac{1}{2}$	$\frac{1}{2}$ prem.
Philadelphia.....	Sight.....	$\frac{1}{2}$	$\frac{1}{2}$ prem.
Baltimore.....	Sight.....	$\frac{1}{2}$	$\frac{1}{2}$ prem.
New Orleans.....	Sight.....	$\frac{1}{4}$	$\frac{1}{2}$ to 1 prem.
England.....		109 $\frac{1}{2}$	110.

## SPECIE.

GOLD.

California clean, 8 oz. . . . .	\$17 60	@	\$17 65
Spanish Doubloons. . . . .	16 00	@	16 00
Patriot Doubloons . . . . .	15 60	@	15 80
Sovereigns . . . . .	4 84	@	4 86
Guineas . . . . .	5 00	@	5 00
American, new . . . . .	1 00	@	1 01
American, old . . . . .	1 06	@	1 06 1/2
Portuguese. . . . .	1 00	@	1 01

SILVER.

American Dollars.....	1 04	@	1 04
American, halves.....	1 04	@	1 04
Spanish Dollars.....	1 00	@	1 00
Spanish Quarters.....	1 00	@	1 00
Mexican Dollars.....	1 05	@	1 05
Five Franc pieces.....	97	@	

## LAND WARRANTS

	Off'd.	Ask'd
160 acre warrants .....	\$178	
80 acre warrants .....	89	
40 acre warrants .....	44½	

## CINCINNATI STOCK SALES.

AT THE STOCK BOARD.

MERCHANTS' EXCHANGE

And at Private Sale

AND at Private Sale.  
BY HEWSON & HOLMES

	For one week ending April 11th, 1855.	
\$ 2500	Covington & Lexing. R. R., 10 per cent. Income Bonds.....	75
1000	Cov. & Lexing. R. R., 6 per cent. Income Bonds.....	60
3000	Cin., Wil. & Zanes. R. R., 7 per cent. 2d Mort. Bonds.....	68
5000	Day., Xenia & Belpre R. R., 7 per cent. 2d Mort. Bonds.....	35 ( & int.)
3000	Cin., Ham. & Day. R. R., 7 per cent. 2d Mort. Bonds.....	79 "
2000	Ohio & Miss. R. R., 7 per cent. 2d Mort. Bonds.....	60 "
3000	Ohio & Miss. R. R., 7 per cent. 2d Mort. Bonds.....	62½ "
1000	Hills. & Cin. R. R., 7 per cent. 1st Mort. Bonds.....	61½ "
2000	Junction, (Ind.) R. R., 10 per cent. Income Bonds.....	75
4000	Township of Porter, Del. Co., Ohio, 7 per cent. Bonds.....	62
169	Shares Junction, (Ind.) R. R. Stock	12½ ( & int.)
203	" " Ohio & Miss. " " " "	26 "
282	" " " " " " " "	30 "
150	" " " " " " " "	30¼ "
40	" " " " " " " "	31 "
25	" " " " " " " "	32½ "
200	" " " " " " " "	" "
	(buyer 30 days).....	35 "
40	" Cin., Wil. & Zanes. R. R. Stock 35 "	" "
90	" Little Miami, " " " "	97 "
40	" Cin. Ham. & Dayton " " " "	73 "
100	" " " " " " " "	" "
	(buyer 30 days).....	76
95	" Ind. & Bellefontaine " " " "	48
12	" " Cincinnati " " " "	60
149	" Mad Riv. & L. Erie " " " "	34½
200	" " " " " " " "	34½
140	" Cin. & Chicago " " " "	8 ( & int.)
100	" " " " " " " "	8½ "
53	" Cov. & Lexington " " " "	27½ "
50	" Indiana Central " " " "	49½
25	" Farmers Bank, Ky., " " " "	101

### Monetary and Commercial.



**BRITISH MANUFACTURES.**—Notwithstanding the strikes and turn-outs of the past year, it appears that a larger consumption of cotton has taken place in Great Britain than at any previous period, the quantity in 1836 being 35,000,000 lbs. weight; in 1845, 597,000,000; in 1852, 745,000,000; in 1853, 734,000,000; and in 1854, about 780,000,000. The increase upon last year's deliveries to the trade of Great Britain—Messrs. DuFay & Co. observe—is 6 2-5 per cent.; to Russia, Germany, Holland and Belgium, an increase of 4 1/2 per cent.; to France of 2 1/2 per cent.; to Spain of 2 per cent.; and a decrease in the trade of the United States of 8 per cent. The increase of the consumption in this country, in the face of strikes and bad trade, is accounted for by the fact that manufacturers have been much more generally engaged on heavy fabrics—fabrics in which more raw material and less labor are employed.

**RAILROAD IRON FROM CHICAGO.**—The Terre Haute and Alton Railroad Company are now receiving by the C. & M. Railroad, a supply of between six and eight hundred tons of rails from Chicago. It is to be used in laying the track onward from Litchfield, through Hillsboro, to the main branch of the Illinois Central. The road bed is all ready for the iron, and it is now being laid down as rapidly as possible. The opening of the road to the Illinois Central, will greatly increase and extend the business of the Terre Haute and Alton Railroad Company.—*Alton Tel.*

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3. If subscribers neglect or refuse to take their papers from the office to which they are directed, they are held responsible till they settle their bill, and order the papers discontinued.

4. If any subscribers remove to another place without informing the publisher, and their paper is sent to the former direction, they are held responsible.

5. The courts have decided that refusing to take a newspaper from the office, or removing and leaving it uncalled for, is prima facie evidence of intentional fraud.

#### Cleveland & Columbus Railroad.

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Alfred Kelly, Pres't.....L. Tilton, Sup't.

#### Cleveland & Erie Railroad.

OFFICE—Cleveland, Ohio.

William Case, Pres't.....L. Tilton, Sup't.

#### Buffalo & Erie Railroad.

OFFICE—Buffalo, N. Y.

G. Palmer, Pres't. Buff. & State R. R. } C. C. Dennis,  
C. H. Reed, Pres. Erie & North-E. R. R. } Supt.  
1y mar.27.

#### New York Central Railroad.

OFFICE—Albany, N. Y.

E. Corning, Pres't.....C. Vibbard, Sup't.

#### Indianapolis & Cincinnati Railroad.

OFFICE—Indianapolis, Ind.

Col. T. A. Morris.....Pres't.  
1y mar.27.

#### Indiana Central Railroad.

OFFICE—Indianapolis, Ind.

I. S. Newman.....Pres't.  
1y mar.27.

CINCINNATI, HAMILTON AND DAYTON RAILROAD, }  
SECRETARY'S OFFICE.

THE ANNUAL ELECTION of the Stockholders of this Company will be held at the office of the Company in Cincinnati, on Monday, the 7th proximo, at 9 o'clock A. M.

The Annual Election for the choice of Directors to serve for the ensuing year will be held at the same place, and on the same day, between the hours of 2 and 5 o'clock P. M.

FRANK S. BOND, Sec'y.

Cincinnati, April 2d, 1855.—Apr.55.

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A. WETHERBEE, Proprietor.

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**FREE-JOINT TUBES**  
**For Core-Bars, Awn-**  
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**HOLLOW SLAB WATER TUYERES,**  
**For Smiths' use, and**  
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**HOT WATER APPARATUS**  
 for warming air, boiling water and heating ovens.  
**ANNULAR**

**Surface Condensers**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length.)

**CAST-STEEL CANNON**  
 of any calibre.

**PATENTED CAST-STEEL TIRES,**

For Railway Wheels. Railway Axles and Springs.

**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

**FRIED. KRUPP,**  
 Essen Rhenish Prussia,

Represented solely in the United States by

**THOMAS PROSSER & SON,**

**28**  
 PLATT STREET, New York.



(On Baltimore & Ohio Railroad, midway between Baltimore and the Ohio River.)

**MANUFACTURERS of Engine Lathes, Planing Machines, Drill Presses, Hand Lathes, and other Machinists Tools.** These tools are built in a superior manner, from the very best materials, and are particularly adapted for railroad shops and all others repairing first rate machinery. Our location is very advantageous for shipping work to the West or South. Orders and communications receive prompt attention. Address nov9-6m. **SHRIVER & BROTHERS, Fulton Works, Cumberland, Maryland.**

**DURYEE & FORSYTH'S**  
**PATENT**  
**PLATFORM SCALES.**



**WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.**

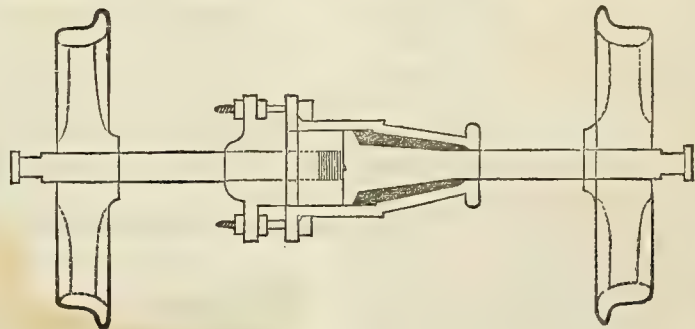
We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.  
 HEWSON & HOLMES,  
 83 and 85 Walnut-Street.

**STEREOTYPE FOUNDRY,**  
 AND AGENCY OF  
**L. JOHNSON & Co.'s TYPE FOUNDRY.**

**C. F. O'DRISCOLL,** (Successor to A. C. JAMES.)  
 is prepared to execute in the best manner all kinds of **STEREOTYPING,** including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order **PRINTING MATERIALS OF EVERY KIND,** **AT THE FOUNDRY PRICES.**

**C. F. O'DRISCOLL,**  
 No. 167 Walnut Street,  
 Cincinnati, O

**DENNEY'S DIVIDED CAR AXLE.**



**PATENTED JANUARY 31ST, 1854.**

**THE ATTENTION OF RAILROAD COMPANIES** is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

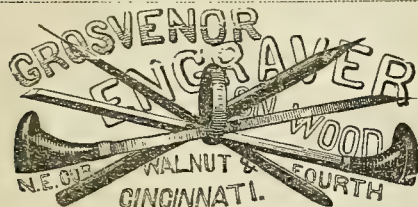
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
 Christiana, Pa.  
 Or, to **CHRISTIAN UMBLE,**  
 Gap, Pa.



# T. N. RAFFINGTON, GENERAL ENGRAVER,

North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
CINCINNATI.



# BANK NOTE ENGRAVING. DANFORTH, WRIGHT & Co.,

No. 25 West Third Street, Cincinnati.  
Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

# Rawdon, Wright, Hatch & Edson,

BANK NOTE  
ENGRAVERS AND PRINTERS.  
Also, engraved in a style corresponding in excellence  
with that of Bank Notes—  
RAILROAD, STATE, AND COUNTY BONDS,  
BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, Coun-  
ty and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order  
of a superior quality.  
The above office is under the supervision of  
GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.  
mi3

# New Works on Civil Engineering.

THE Field Practice of Laying out Circular Curves  
for Railroads. By John C. Trautwine, Civil Engi-  
neer.—4th Thousand, in pocket-book form with tucks.  
—ALSO—  
A New Method of Calculating the Cubic Contents of  
Excavations and Embankments, by the aid of Tables  
and 10 Engraved Plates of Diagrams. By John C. Trau-  
twine, C. E.; 2d edition.

Price, one dollar each. Postage on the Curves, five  
cents; on the Excavations and Embankments, eight  
cents. For sale by WILLIAM HAMILTON,  
Hall of the Franklin Institute,  
Philadelphia, Pa.

Sept. 21-3\*

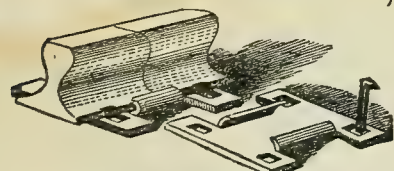
# ENGINEERS' & SURVEYORS' INSTRUMENTS.

JAMES FOSTER, JR.,  
SOUTH WEST CORNER OF FIFTH & RACE STS.

HAS FOR SALE, OF HIS OWN  
MAKE, Levels, Transits, Theo-  
dolites, the Dumpy or Gravatt's Level,  
Circular Protractors of Troughton &  
Simms and other models, Surveyors,  
Compasses, Pocket Compasses with  
and without sights, in great variety. All  
kinds of Land Chains; Ivory and Box  
wood Scales of all kinds; Drawing  
Instruments of all kinds, Measuring  
Tapes of all kinds, Magnets, Magnify-  
ers, Barometers, Thermometers, Spy  
Glasses, &c., &c. Repairing promptly  
attended to.

Dr. Locke's Hand Level always for  
sale. For construction and use, see R.  
R. Record of October 20th, 1853. marl-tf

# RAILROAD SPIKES,



# WROUGHT IRON

# Chairs and Fastenings.

THE undersigned will continue to manufacture with  
increased facilities, HOOK & FLATHEAD R. R.  
SPIKES, of all Patterns, WROUGHT AND CAST  
CHAIRS, and FASTENINGS, BOILER RIVETS  
BOLTS, SHIP and BOAT SPIKES, &c., &c.

The best quality of refined iron is used, and all orders  
filled with despatch. J. HOPKINSON SMITH,  
No. 25, South Charlesst.

Please direct the name in full.  
Baltimore August 31-7

# CLINTON ROBSON & CO., BRASS FOUNDERS,

No. 154 Front street, between Pike and Butler sts.,  
CINCINNATI OHIO.

STOP COCKS, Bibb, Flange, Valve, Gauge, and  
Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes,  
Couplings, Salt Well, and Hose Joints; Steam Whis-  
tles, Distillery Work, General Brassers, Anti Friction  
Metal, Spelter Solder, and Copper Rivets.

Pumps of all descriptions, Brass and Composition  
Castings, Dixon's best Black Lead Crucibles.  
Also, Dr. Ransom's Patent Constant Suction Pump  
for Railroad Water Stations.

# RAILROAD IRON.

I WOULD respectfully call the attention of Railroad  
Companies and Contractors to my facilities for  
NOTCHING RAILROAD IRON

Suitable to be spiked in the Chairs. My Portable Punch-  
ing Machines, for which I received Letters Patent, enable  
me to make contracts for punching iron at a less price  
than can be done with any other Punching Machine now  
in use.

Orders solicited, and work executed in any part of  
the United States. Address,

S. M'KENNA,  
jan11.-tf. Box 705, Cincinnati P. O., Ohio.

# NOTICE TO CONTRACTORS.

# Nashville & North-Western R. R.

PROPOSALS will be received at the Office of the  
Nashville and North-Western Railroad Company,  
for the Graduation and Masonry of said road, in sections  
of twenty or thirty miles.

The Company reserve the right to reject all the pro-  
posals, if none are satisfactory.

The length of the road is one hundred and sixty miles,  
and proposals are invited from contractors of ability  
for the entire work, including track, stating what  
amount of bonds, stock and cash will be received in  
payment.

Any information required, can be received by applica-  
tion to N. MACNEALE, Chief Engineer.  
Nashville, Tenn., 25 Jan., 1855. feb10my

# THOS. M. CASH,

# PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway  
Companies, On Commission.

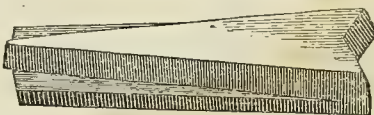
Office, No. 80, South Fourth-street, near Walnut,

# PHILADELPHIA.

# REFERENCES

Richard Norris & Son, Locomotive Builders, Philad'a.  
Wm. D. Lewis, Esq., Pres't Catawissa R. R. Co. "  
Charles H. Fisher, Esq.,  
Jno. Caldwell, Esq., Pres't S. C. R. R. Co. Charleston, S. C.  
Pinkney Huger, Esq., Pres't N. E. R. R. Co. "  
Oct. 13-tf.

Important to Railroad Companies, etc.



# Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel,  
in a liquid state, can be moulded into any shape or  
form, are, by means of this valuable discovery, manu-  
facturing

# RAILROAD FROG-POINTS,

# Lathe Mandrels, Gauges

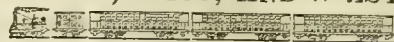
of every description for blacksmiths use; Steps for Mill  
Spindles and Shafting, Swage Hammers, and almost all  
the different variety of tools which are difficult to  
forge. Articles made in this manner, are much superi-  
or to forged productions, as the steel out of which they  
are manufactured, loses none of the carbonic  
element, but retains it in all its original purity, while  
under the repeated heats to which it is subjected by the  
old and tedious process, it loses much of this valuable  
property. They are also produced in a much more perfect  
state, needing little or no fitting or dressing, hav-  
ing all the accuracy of shape which moulded articles  
possess. They can, also, be furnished at one-half the  
cost of the others.

The qualities of the Frog points have been already  
tested by the Ohio and Mississippi Railroad Company,  
to whom the manufacturers are furnishing them through  
G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this  
valuable invention. LEE & LEAVITT,  
15 Walnut-st, Cin'ti.

N. B.—They would also call the attention of the pub-  
lic to their valuable and extensive assortment of cast  
steel saws, and circular saw mills, etc.

# NORTH, EAST, AND WEST!



BY WAY OF

# Cincinnati, Hamilton and Dayton R.R.

# WINTER ARRANGEMENT.

COMMENCING MONDAY, DEC. 11, 1854.

Passenger Trains will leave the Sixth-street  
Depot as follows:

FOR INDIANAPOLIS, CHICAGO,  
ST. LOUIS, &c., &c., &c.

At 6 A. M. and 2.15 P. M.,

Trains leave the Hamilton, Eaton, Richmond, Indi-  
anapolis, Terre Haute, Lafayette, Chicago, Galena,  
Rock Island, St. Louis, &c.

At 8 A. M.,

Dayton, Sandusky, Cleveland, Pitts-  
burg, Philadelphia, Baltimore,  
New York, &c.

At 2.15 P. M. and 4 P. M.

For Hamilton, Dayton and intermediate points.

At 5.20 P. M.,

For Hamilton, Richmond and intermediate points.

The 6 A. M. Train will connect at Richmond, at  
A. M., with Train of Indiana Central Road for Indiana-  
polis; arrive there at 11.30, A. M.; thence to Terre  
Haute, Lafayette, and Chicago, without detention.  
Time as short as any other route.

The 8 A. M. Train will connect at Dayton, at 10.30,  
A. M., with Mad River Train for Sandusky and inter-  
mediate points; also at Crestline at 4.20 P. M. with  
Ohio and Pennsylvania train for Pittsburgh, Philadel-  
phia, Washington, &c. The same Train will connect  
Clyde with Toledo and Cleveland Train to Toledo,  
Chicago, and intermediate points. Also, with Dayton  
and Michigan Railroad to Troy and Piqua, and with  
Dayton and Greenville Railroad to Greenville, Union  
and all points on Bellefontaine and Indianapolis Rail-  
road, at 2.45 P. M.

The 2.15 P. M. Train connects at Richmond with  
Indiana Central Train for Indianapolis Terre Haute,  
Lafayette, and Chicago. Also, with Train for Hager-  
stown and Newcastles.

The 4 P. M. Train connects at Dayton with Train for  
Troy, Piqua, &c.

For further information or tickets, apply to W. A.  
LATHAM, General Agent, at the Office, corner Broad-  
way and Front street, under Spencer House, or at the  
office on Walnut street, next door to the Gibson House  
or at the Sixth-street depot.

HENRY O. AMES, Sup'l.

The Omnibus Line will call for passengers, by leaving  
their name at the office. W. H. SMITH, Conductor.

# WINTER ARRANGEMENT.

SAFETY—SPEED—COMFORT.

# Cincinnati to Indianapolis.

St. Louis, Chicago, Galena and Rock  
Island,

BY THE WAY OF THE

# CINCINNATI, HAMILTON AND DAYTON, AND EATON & HAMILTON RAILROADS.

TO CHICAGO, in.....15 HOURS  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route o  
any in the West, as it passes through the richest and  
most thickly settled portion of the State of Indiana. In  
taking this route, passengers will reach Terre Haute,  
Lafayette, Peru, Michigan City, Chicago, Rock Island,  
Galena and St. Louis, as soon as any other leaving  
Cincinnati, and with but little fatigue, in consequence of  
the superior manner in which the roads are constructed  
and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,  
LAFAYETTE, PERU, &c.

Trains leave the Depot of the Cincinnati, Hamilton  
and Dayton Railroad as follows, viz:

First Train—Lightning Express at 6, A. M.

Second Train—Accommodation, at 2.15, P. M., con-  
necting at Richmond with train for Hagerstown, New-  
castle, &c., &c.

Third Train—Accommodation, at 5.20, P. M., for  
Richmond and intermediate points.

Returning, reach Cincinnati at 10, A. M. and 12 M.  
and 6, P. M.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at  
the General Railroad Ticket Office, No. 169 Walnut-st.,  
or to W. A. LATHAM, at Cincinnati, Hamilton and  
Dayton Railroad Office, corner of Broadway and Front  
streets, under the Spencer House, or at the Sixth-street  
Depot.

JOHN W. SHIPLEY, Agent.  
The Omnibus Line will call for passengers by leaving  
their orders at the offices.

WM. H. SMITH, Conductor.  
D. M. MORROW, Superintendent.

feb. 8-1y



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

THIS Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**

Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**PHILADELPHIA AND NEW YORK RAILROADS,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericsson Steamers by Canal to Philadelphia and New York,

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, President. JOHN H. DONE, Mast. of Transportation, Baltimore.

**The Shortest, Quickest and Best  
ROUTE TO LOUISVILLE.**



MADISON, INDIANAPOLIS, PERU, TERRE HAUTE, MICHIGAN CITY, CHICAGO, GALENA, ST. LOUIS, AND NEW ORLEANS.

**OHIO & MISSISSIPPI RAILROAD,**

ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER notice, the Passenger Trains will run as follows:

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.  
For Indianapolis.**

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.****For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M., 2.30 P. M., 4.05 P. M., and 9.30 P. M.

FREIGHT TRAINS for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth street, north side, four doors from Vine street, opposite new Custom-house.

S. S. POST.

Chf. Eng'r and Supt.

Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.  
W. S. BABCOCK, Agent,  
Sept 5. St. Louis and Cincinnati Omnibus Line.

**1855. Winter Arrangement, 1855.  
COMMENCING MONDAY, JAN. 29.**



**LITTLE MIAMI AND COLUMBUS AND XENIA RAILROAD.**—Passengers by the 6 o'clock A. M. Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

**FROM CINCINNATI TO**

To New York in.....	32½ hours.
To Philadelphia in.....	31½ "
To Washington in.....	29 "
To Baltimore in.....	28 "
To Buffalo in.....	16½ "
To Dunkirk in.....	15 "
To Cleveland in.....	9½ "
To Sandusky in.....	8¼ "
To Pittsburgh in.....	14 "
To Wheeling, in.....	10½ "

**FOUR DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

**SECOND TRAIN.**—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

**THIRD TRAIN.**—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stop at all points between Cincinnati and Morrow.

**FOURTH TRAIN.**—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**FARE AND THROUGH TICKETS.**

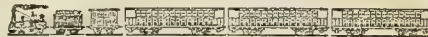
For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-box Landing, or at the Eastern (Little Miami) Depot, East Front street.

WM. H. CLEMENT, Superintendent.

P. W. SRADER, General Agent.

**OMNIBUS LINE.**

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

**COLUMBUS PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West and from Urbana, East.

On and after Monday September 19, 1853, two trains per day, (Sunday excepted) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a.m., and 3.30 p.m., arriving at Urbana at 8.12 a.m., and 6.14 p.m. Returning—will leave Urbana, for Columbus, at 9.15 a.m., and 3.00 p.m.—arriving at 12.05 and 6.55 p.m.

The 4.50 a.m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p.m. train—arriving at Urbana in time to get supper and take the 5.35 p.m. train for Dayton and Cincinnati.

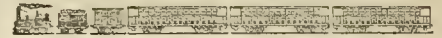
The 9.15 a.m. train from Urbana connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a.m.—arriving at Columbus at 12.05 p.m. in time for the 1 p.m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p.m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p.m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Sup

at 9-tr.

Piqua, Sept. 13, 1853.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also, connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 3.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.

Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.  
On and after MONDAY Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fulmouth, Callenville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laid's and Kiser's and arriving at Paris at 11.30 A. M.

Returning, leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leave Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train lie over night at Paris and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Srader, Agent; or at the Depot, Covington. J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices. oct. 17- CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago,  
and St. Louis by Indianapolis & Cincinnati Railroad,**

VIA LAWRENCEBURG,

IN connection with the **OHIO & MISSISSIPPI RAILROAD.** Passenger Trains leave Cincinnati at 7.15 A. M., and 3.15 P. M. Arrive at Indianapolis at 11.30 A. M., and 8.30 P. M.

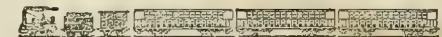
By morning train passengers arrive at Chicago in 14 hours, and at St. Louis in 28 hours.

Freight shipped to Indianapolis and all other points West and North without delay at cheapest rates.

Cars run from Lawrenceburg to Terre Haute, Lafayette, Peru and Chicago, without unloading.

Office, foot of Main street corner of Water street.

Cincinnati Sept. 28, 1854. SIDNEY RICE, Agent.

**Terre Haute & Richmond R. R.**

**TERRE HAUTE, VINCENNES, EVANSVILLE, PARIS AND CHARLESTON.**

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1.10 P. M., (after the arrival of the trains from Cincinnati,) arrive at Terre Haute at 4.49 P. M. Passengers for Paris and Charleston take the cars of the Terre Haute and Alton Railroad, which leave daily at 7.30 A. M. Those for Vincennes and Evansville take the cars of the Evansville and Crawfordville Railroad daily, at 8.30 A. M.

Passenger Train leaves Terre Haute daily, Sunday excepted, at 7 A. M. for Indianapolis, connecting with Trains for the East, Cincinnati, and Louisville.

**FARES.**

Indianapolis to Terre Haute.....	\$2 25
Terre Haute to Vincennes.....	2 25
" " to Evansville.....	4 00
" " to Paris.....	8 00
" " to Charleston.....	1 75

Terre Haute, March 12, 1853. Gm. Superintendent.

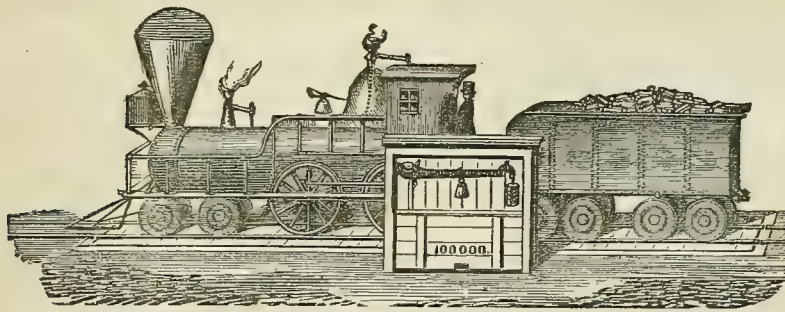


ISAAC RIGDON.

EDWARD C. RYLAND.

WM. HUDDART.

## OHIO SCALE WORKS.

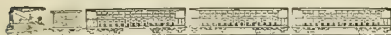


**Rigdon, Ryland & Co.,**  
No. 39 Vine Street, between Front and Columbia streets,  
CINCINNATI.

WE are now prepared to furnish **Railroad Track and Depot Scales** of all sizes, which we warrant in every respect equal to any manufactured in the United States. Being practical workmen ourselves, we feel confident that we can furnish the West and South with as good an article and cheaper than can be bought East.  
Cincinnati, June 29, 1854.

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch. They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of St and Machinery required for railroads.

Particular attention will be paid to repairing, which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNIS & PECK,  
e.9-1f Louisville, Ky.

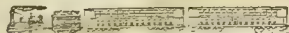
## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Railroad Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.  
Madison, Indiana. May 11.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

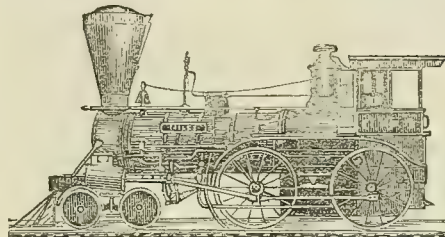
## LOCOMOTIVES OF SUPERIOR QUALITY.

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**ASHCROFT'S**  
**METALLIC STEAM GAUGE.**  
(BOURDEN'S PATENT)

THE subscribers offer for sale this valuable Gauge. It is adapted to Locomotive and other steam boilers, indicating with accuracy the continual variations of steam within the boiler, enabling the Engineer to maintain a uniform and safe pressure. Any of the Eastern Railroads may be referred to for proof of its importance and value.  
BRIDGES & BROTHER,  
sep.15-1f 64 Courtlandt St., New York.

## LOCOMOTIVE WORKS.



## NILES &amp; CO.,

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c., &c.  
feb. 13 1855 6m.

## Lightner's Patent Axle Boxes for Railroad Cars.

THE attention of Railroad Managers and others is called to this valuable improvement in  
AXLE BOXES.

The first cost and "fitting up" of these boxes is 20 to 25 per cent below that of most boxes in use. They will save about 75 per cent in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and Testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.6. Office, No. Courtlandt st., New York.

## PROSSER'S PATENT

## Lap-Welded Iron Boiler Tubes.

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Awning Frames, Loaders, etc.

Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

Agents for Krupp's celebrated Cast Steel for Shafts Railway Axles, Tires, Platers' Rollers, etc.

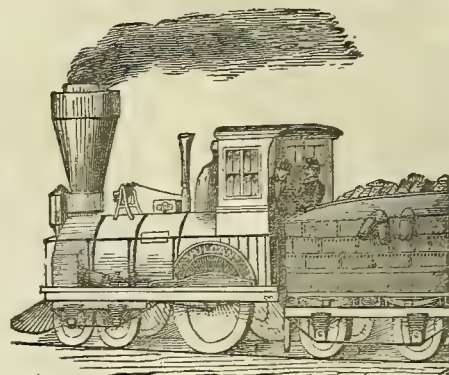
P. S.—All Tools necessary for the construction or keeping in order of Tubular Boilers.

THOS. PROSSER & SON

28 Platt street, New York.

an.17

## Cincinnati Locomotive Works!



THE undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap. 20 MOORE & RICHARDSON.

## WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,  
CLEVELAND, OHIO.  
Passenger, Baggage, Freight, Dumpers,  
Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T & F. Wason, Springfield,  
to c20 Massachusetts.

## Railroad Car Findings.

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fitted  
Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and  
Telegraph Screws,

LOCOMOTIVE ENGINE LANTERNS,  
From the best Manufacturers, and at their prices. Car  
Hand, and Signal Lanterns.

Cotton Duck for Car Covering,  
Of any required width to 124 inches.  
ENAMELLED HEAD LININGS  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan, and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

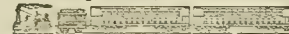
## Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,  
Cambridgeport, Mass.

ALFRED BRIDGES,  
Late Davenport, Bridges & Co., Fitchburg, Mass.

to c6  
**CAR MANUFACTORY,**  
Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops, are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and switches of the most approved patterns.

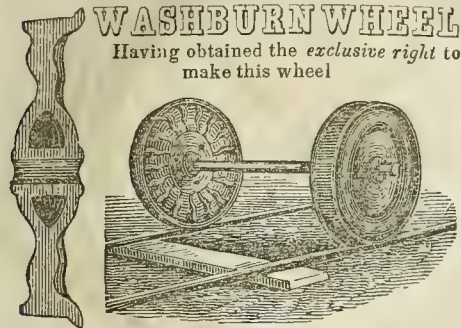
They also manufacture blacksmiths' tuyeres, Harris' Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan. 24th, 1855. Jan. 25-+



**FULTON CAR WORKS,  
CINCINNATI, OHIO.**

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

**MUSKINGUM WORKS,  
ZANESVILLE, OHIO.**



**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
at 41st. Muskingum Works, Zanesville, O.

**J. DAVENPORT, . . . M. D. WELLMAN, . . . C. M. RUSSELL**

**DAVENPORT, RUSSELL & CO.,**

**Railway Car Manufacturers,  
MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburgh, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16/87 **JOSEPH DAVENPORT.**

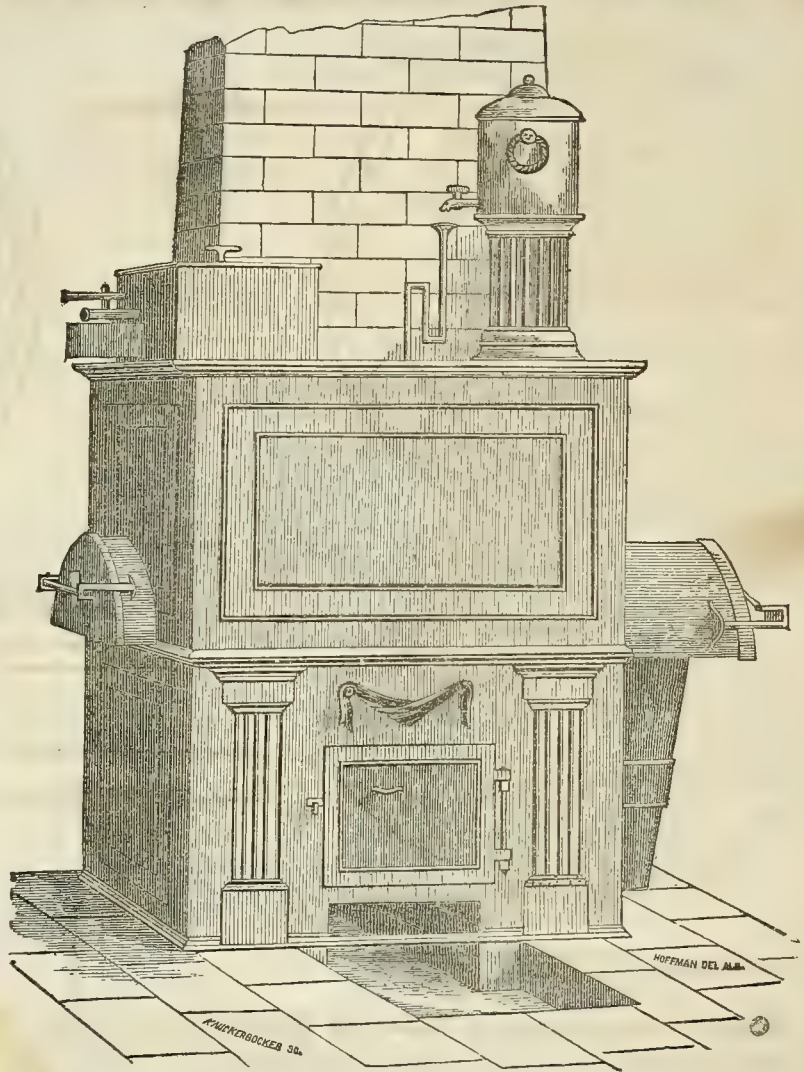
**S. C. THOMSON & CO.,**

MANUFACTURERS OF

**PATENT PAD LOCKS,**

For Railroad Switches, Merchandise Cars, Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n. 12th NEWARK, N. J.

**N. AUBIN'S GAS GENERATOR**

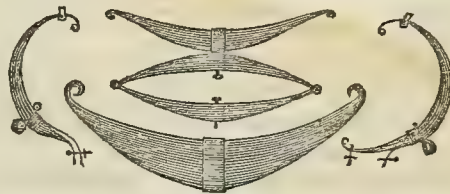


**T. WRIGHTSON & CO., Agents,**

167 WALNUT STREET, CINCINNATI, O.

**MCDANEL & HORNER,**

**LOCOMOTIVE AND CAR SPRING**



**MANUFACTURERS, WILMINGTON, DEL.**

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge

References.

**NORRIS BROTHERS, Locomotive Builders, Philad.**

**A. C. GRAY, Prest New Castle Manuf. Co.**

**U. WELLS, R. R. Car Manuf. Petersburg, Va.**

**I. R. TRIMBLE, Supt. Philad. R.R. Co.**

May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.**

**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**

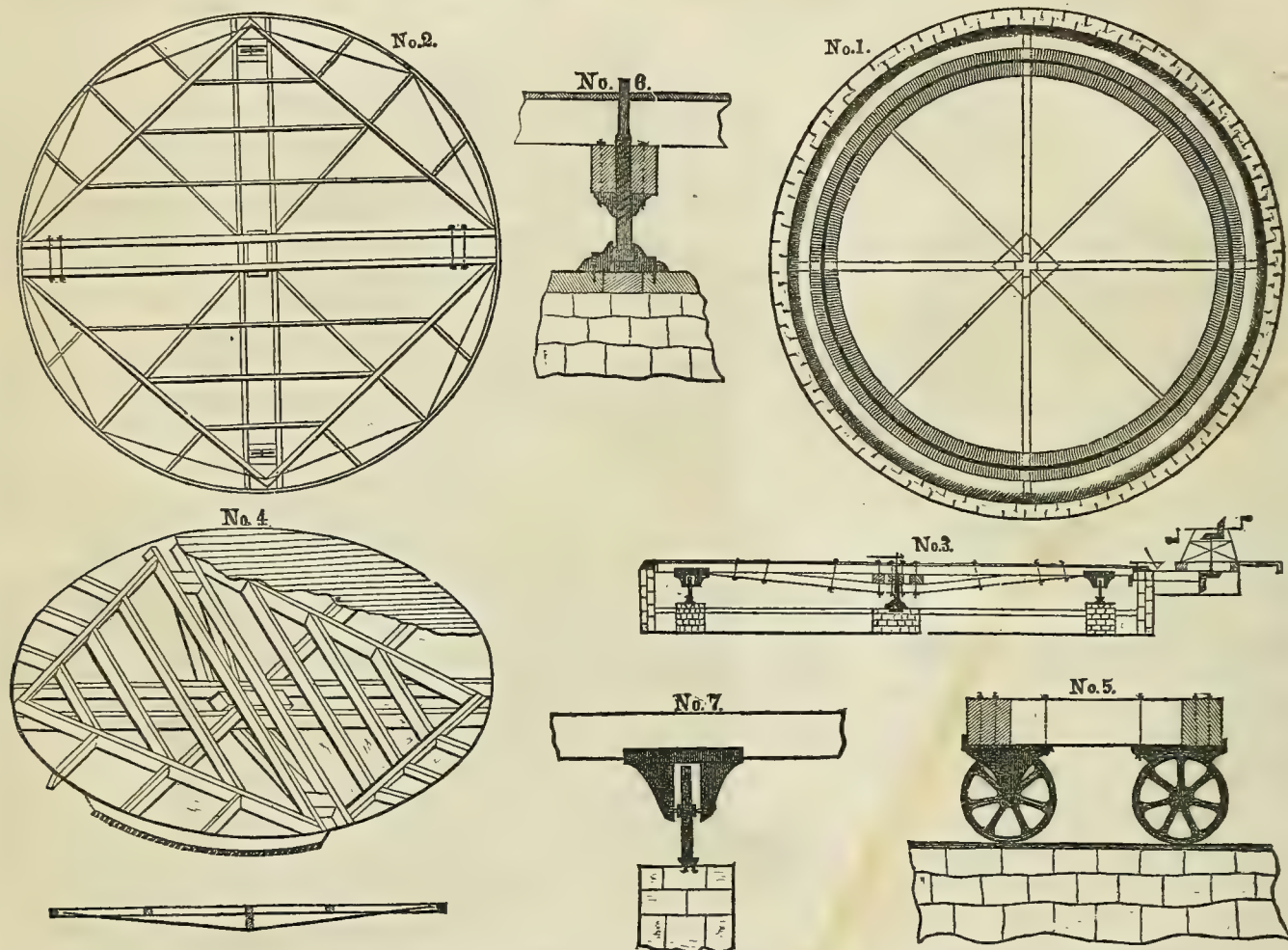
**THOMAS DOUGHERTY, Master Mach. do.**

**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va**



# CARHART'S IMPROVED TURNTABLE.

Now building for 13 of the Principal Roads in Ohio, Indiana, New York, New Jersey, and North Carolina.



This Table, together with an Engine and Tender of 30 Tons Weight, can be Turned by One Man in 25 Seconds.

RAILROAD COMPANIES in want of Turntables of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction.

The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland Ohio.

Columbus, Piqua & Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer, Akron, Ohio.

Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroads, L. Tilton, Sup't, Cleveland, Ohio.

Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.

Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.

Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.

Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.

Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Sup't, Marion, Ohio.

Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.

Wilmington & Raleigh Railroad, North Carolina.

Central North Carolina Railroad.

Cincinnati & Indianapolis Railroad, Indiana.

New Albany & Salem Railroad, Indiana.

Michigan Central Railroad, Michigan.

Dayton, Xenia & Belpre Railroad, Ohio.

Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony, President.

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of Bank and Track Walls, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The Track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

D. M. CARHART, Cleveland, Ohio.

## MATHEMATICAL INSTRUMENTS.



T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut sts.

No. 1, 2d STORY, APOLLO BUILDING,

CINCINNATI, O.,

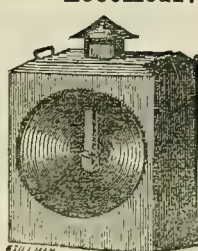
MANUFACTURERS OF

Surveyors' and Engineers' Instruments, Theodolites, Transits, Levels, &c., &c.,

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

## LOCOMOTIVE LANTERNS.



I AM now manufacturing  
**LOCOMOTIVE  
LANTERNS**

of the most approved form, with true Parabolic Silver-plated Reflectors, Copper Cases, and in every way equal to the best manufactured in the country.

Orders from Railroad Companies in the West are solicited.

A. S. WINSLOW,  
9 and 11 West Second St. Cincinnati.

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying Use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power, and works equally as well horizontally or at any angle, as perpendicularly.

A silver medal, the highest prize, was awarded these Machines at the World's Fair. Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.



# Railroad Record.

E. D. MANSFIELD, - - - - - Editor.  
J. A. JAMES, }  
W. WRIGHTSON, } - - - Associate Editors.

CINCINNATI:

THURSDAY MORNING, ..... APRIL 19, 1855.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

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**PATENT LAP-WELDED BOILER TUBES.**—We invite the attention of our readers to the advertisement of Messrs. Thomas Prosser & Son, of New York. We have known their boiler tubes for some time by reputation, and to-day received by express samples of several different sized tubes of their manufacture. The specimens we have, are made of the best of iron, fine grained, and uniform, made of accurate shape, and evidently welded with great care. They are perfectly free from the stripped appearance so generally presented by wrought iron tubing, and hence present both inside and out, a smooth, uniform surface.

Among the specimens sent us, is one of their glazed tubing, for artesian wells and water pipes. The enamel gives the tubing a beautiful, smooth surface, and effectually prevents rusting, thus securing a flow of water as pure at the surface as when it first leaves the rock hundreds of feet below the surface.

We shall be pleased to show these specimens of tubing to any of our friends who may call upon us.

**HAND BOOK OF WISCONSIN AND CHAPMAN'S MAP OF WISCONSIN.**—Our acknowledgements are due to Mr. Chapman, author and publisher of the above works, for a copy of each. The Hand Book contains much valuable information, brought down to the latest date, about Wisconsin and her resources, her products, her lumber districts, her minerals, and her railroads. It also embraces a detailed account of the counties.

The map is a colored sectional map.—These works are published by S. Chapman, Milwaukee.

VOL. III.—No. 8.

## FAILURE OF PRIVATE BANKS, AND THEIR CAUSES—MODERN FINANCIERING—THE MORALITIES.

When we say the failure of *private banks*, we do not, of course, mean that all private banks have failed, or even a majority of them; but, only that a large number of conspicuous, noted, and to the world's eye, wealthy concerns have failed, to the amount of so many millions, and with such a crash, as to startle the public mind. It is, therefore, an event worth noticing, and if the press performs the moral duty, attached to its high position, should be noticed in a searching manner.

The term *Bank* was applied in Venice centuries since to persons who received, held, and loaned money publicly, before paper money or corporations were created, and is, therefore, properly applied to individuals dealing in money, as well as corporations.

It is not an assumption, therefore, for an individual dealing in money to call himself a "Banker." He may do so with propriety. But, his being a banker does not relieve him from all the duties and liabilities attached to *fiduciary trusts*. All bankers are trustees for others, and, in the failure to comprehend the full force of this, may be found the cause of all the failures, which have occurred. The moralities of trade have not been properly taught or comprehended. It may be as well to say a word on this subject, and illustrate it by example.

1. There has been within the last ten or fifteen years, a steady teaching, especially by politicians and speculators, of the most pernicious doctrines in morals, politics, and philosophy, from which we have only been saved from utter ruin, by the fact that they were utterly false, and, therefore, could not live. It has been taught, that this young, growing nation, requiring more than others to sustain and build up its arts and industry, could go into free trade with all the world without loss or detriment. Happily, the necessity politicians had to raise a revenue somehow, saved us from carrying that idea into practice. We have been obliged to have a tolerable tariff, to get money for the office holders to spend; and in that respect, we should be thankful. But, what would the country have been without a tariff, when we send forty millions of gold now to Europe annually?

Another false idea is, that the usury laws should be repealed! As if man was not the same oppressor in heart now that he has ever been, and if the money lender would not take as much as he can get, from whomsoever he can! We have had some practice in this idea, and may have more. But what is the result? The rate of interest rises just as fast as the usury laws are repealed. This is the experience in Cincinnati, and all other places where the experiment has been tried. The man who wants to lend money at 20 per cent. says that money is merchandize, and that a

dollar and a potato are the same in trade. If he really believed this, he would be the most unteachable blockhead in existence. But he does not. He is only following the wishes of his heart, and makes an argument to suit his interests. The idea has some plausibility, and in some states we see it carried into legislation. The result is that rates of interest in the midst of the greatest abundance of money, are higher and higher from year to year. This fact has given existence to the great number of what are called private bankers in our cities. They are founded upon this idea of *getting capital by deposits* from the public, and lending to individuals at *enormous rates of interest*. That is, making a profit on *other people's money*.

The very first step in these banks shows them inferior to corporate banks, and far less safe. The private banker *may*, and in some instances has, commenced banking *without a cent of capital*. In fact, capital enough to set up a candy store would be quite enough to begin on. But, corporate banks, with a proper banking law, *cannot* commence without *some capital*. There must be something real and tangible to begin on. The beginning, therefore, is in favor of the corporate bank. Again, the private banker proceeds with a capital loaned from the public, and payable on demand, without any restrictions as to the coin he shall keep on hand. If he departs in the least, from the limits of the utmost discretion and prudence, he is in danger. The corporate bank also receives credit from the public; but is compelled, by law, to keep some *proportion* of coin on hand, and has some real capital. In other words, it must, without committing a fraud, have a certain margin beyond its credits to answer its liabilities. In the very outset, then, the corporate bank, under a proper law, is safer and better for the public; though every individual in society has a right to be a private banker, if he pleases. It is merely a branch of trade.

Such being the foundation principles of private banking, we have no difficulty in determining why so many of that class of bankers have failed. Almost all their capital *was borrowed capital payable on demand*. It will be altogether within limits to say, that out of the *four millions of liabilities* attached to the eight or ten banking concerns in Cincinnati who failed, not more than *one-tenth* was really their own capital.

The same is true of the firms which failed in St. Louis and New York. The other *nine-tenths* belonged to the public, and the public demanded its own. Why did the public demand it? The bankers, the financiers, the politicians, the free trade ranters, of all sorts, say the only difficulty is the public *want confidence*! This is certainly true. But that is not the end. Why did the public *want confidence*? The public wanted confidence be-



cause they saw bankers, merchants, and traders generally engaged in speculations of all kinds, and thought, correctly too, that such a state of things could not last. The depositors, therefore, began, and continued to withdraw their deposits, till the bankers failed. And this was not occasioned by a *run* merely. Two of the heaviest banking houses in Cincinnati, each sustained *runs*, and announced in the newspapers, most exultingly, how they had gloriously sustained and could sustain, any run made upon them. In a few weeks they failed from the *gradual withdrawal of their deposits*. The same was the case with the noted house of *Page & Bacon*, at St. Louis. The St. Louis *Democrat* asserts, that *Page & Bacon* failed chiefly on account of their connection with the *Ohio & Mississippi Railroad Co.* Now, there is no truth in that statement. *They made much more than they lost*, and that we are prepared to prove. *Page & Bacon* failed for precisely the same reason that all their companions in misfortune did; because *they used other people's money as their own*. It may be asked, had the bankers no right to *employ their deposits*? Undoubtedly, all banks do this. But they had no right to employ it, in any way, in which it could not be *commanded in a short time*. They might have loaned it on purely commercial paper at short dates, or on call, or on short certificates of deposits; in fine, in any way which was strictly commercial, and strictly secure; and so far as they had capital of their own, they might loan it as they pleased. Had they done so, not one of them would have failed. In reply, it will be said; they could not make money in that way. True, they cannot make money by paying 6 per cent. on demand deposits, and keeping that money so that it *can* be paid on demand. And, here we come to the moral of this theory, and it should be understood of all men. The law fails to restrict the use of money, and thus violates a great moral principle. The consequence is, the banker violates another moral principle. He uses *other people's money as his own*. He is tempted on one hand, and in turn, tempts others. Being trusted with immense sums of money, he is seized with that sort of moral lunacy, which prosperity always begets. Sudden riches is a very dangerous thing, and few are the men who can resist its influences.

We have no idea that the men engaged in banking are any way different from other men, or have failed, where others, under the same temptations would have succeeded. On the contrary many of them are good men, and all of them men of superior intelligence. But, we desire to point out some of the evils which flow from the inculcation of false principles. The public mind has been led astray on many points of morals, politics, commerce, and philosophy, by listening to the most mis-

erable demagogues, which ever infested any nation. If it be not led back by convictions of the truth, it will be led back through tribulation and suffering.

The public will not soon give the confidence to private bankers, which they once received; but there are many other points upon which it has yet to be taught by experience.

#### WESTERN CITIES, NO. 7---MILWAUKEE, WISCONSIN.

Milwaukee is one of the town-wonders—of which the like can not be found out of the United States. It was laid out in 1835, just twenty years since, by Messrs. Kilbourne, of Columbus, Ohio, and Micajah T. Williams, of Cincinnati. It is situated on the western shore of Lake Michigan, about one-third of the distance from the southern outlet, with a good harbor and convenient to a large district of rich and populous country. Railroads are now rapidly constructing to the interior, and the trade of Western Wisconsin, Upper Iowa, and Minnesota will find an outlet there. The progress of population has been as follows:

In 1838.....	700
In 1840.....	1,712
In 1847.....	14,000
In 1850.....	20,061
In 1855.....	40,000

At this rate, Milwaukee will hold its own, as compared with any town whatever.

The business of the place is counted thus:

Manufactures.....	\$4,600 000
Imports.....	11,000 000
Exports.....	7,000 000

A very excellent and superior salmon-colored brick is manufactured there, of which upwards of three millions are annually exported, some of which are even sent to New York. Some large houses there are built of Milwaukee brick.

Milwaukee is of course a large exporting port. The following are among the principal articles of export from Milwaukee, for 1854, viz.:

Wheat.....	2,053,019 bushels.
Flour.....	155,051 barrels.
Corn.....	208,828 bushels.
Oats.....	424,487 "
Barley.....	323,267 "
Pork.....	24,558 barrels.
Hams.....	3,690 "
Lard.....	3,293 "
Beef.....	7,524 "
Beer.....	8,500 "
Whisky.....	1,650 "
Butter.....	305,500 lbs.
Wool.....	226,458 "
Brick.....	3,645,000 number.

The commerce of Milwaukee is increasing at the rate of 50 per cent. per annum.

The number of arrivals of vessels and steamboats, in 1854, was 2,000.

The commerce of Milwaukee will increase rapidly as the interior of Wisconsin and Minnesota settles. Naturally, Milwaukee has as many advantages as Chicago, and probably will increase as fast when the present fever of speculation has ceased at Chicago.

Milwaukee, and Wisconsin generally, is one of the favorite locations of the foreign immigrants. Fortunately for the State and town, they are of different sorts and sects, so that the State cannot come under one foreign element. With the Germans and Irish, have come the Hollanders, or real Dutch, the Welsh, the Norwegians, and the Swedes; so that the State will eventually be mixed and fused more than any State in the Union.

#### AMERICAN RAILROAD IRON.

We are pleased to learn that at last the policy of making our own Railroad Iron at home has been taken hold of in earnest, and that some of our most enterprising citizens are taking the lead in the arrangements for the manufacture of Railroad Iron upon a scale of magnitude somewhat proportioned to the requirements of the country.

We have long since demonstrated, that with works properly located, Railroad bars can be made in this country at a cost very little exceeding what is now actually paid in cash by our companies, for freight, duties and commissions on English bars; and that works, if rightly started, with the adequate capital, could sell to the Railroad companies on as favorable terms as they can get abroad, and realize for the owners a handsome profit. It has always been a matter of surprise that more attention has not been paid to the subject.

The Railroad interest, as well as the public at large, throughout the great West and Southwest, are deeply interested in the entire success of the enterprise, and will no doubt lend a helping hand, if required.

The location for the purpose is not determined on. Some of our most eminent Geologists have for some time been examining locations; and we hope their reports will point to our own State as offering most advantages. But, be that as it may, we say to those engaged in it, God speed you; for the enterprise is not merely of local but of general interest to the whole Mississippi Valley, and we are happy to say it is in able hands.

PAPER FROM THE THISTLE. — Among the patents issued in England during the past year, is one, dated July 8, 1854, to Lord Berriedale, London, relative to the application and use of the common thistle, or *Cai-dus*, as it is termed by botanists, in the production of pulpy material from which paper may be made. All varieties of the plant, it is stated, are applicable to the purposes of this invention, but more particularly the large Scottish thistle, which grows luxuriantly in many parts of Great Britain, attaining a great height and thickness of stem, and which furnish, in each plant, fibre of great tenacity to a large amount. This, when duly prepared, is well suited for the preparation of a paper pulp, which will cohere very powerfully, as well as prove useful in textile manufactures. It may be used whether green or dry, and for paper goes through a process similar to that which rags are subject to, and if for manufactures, like flax.



## Communications.

### SOUTHERN PACIFIC RAILROAD.

The following communication from a gentleman who has traveled over several of the proposed lines of railroad to the Pacific coast, will be read with interest by every one at all interested in the construction of such a road, or in the general welfare of the country.

**A RAILROAD TO THE PACIFIC.**—This subject has for a long time occupied the attention of the public mind, and many of our prominent men have urged the expediency of large appropriations of lands and public credits, to consummate this most desirable object. But so far, government has declined acting in the premises, further than to cause the necessary surveys of the different routes. These surveys have been made by impartial and experienced engineers, and the result of their labors has been officially reported to Congress, and the report of the secretary of war now affords all the necessary information for any one desirous of engaging in this great enterprise, where to invest his capital, so that he may realize the quickest and largest per centage on his investment.

Without deference to Gov. Stevens, who advocates the extreme northern route, or Cols. Benton and Fremont who valiantly claim that the great "Central Route," is the only route worthy of attention; these scientific men proclaim to the world that there is but *one feasible route*, and that is the extreme southern or Texas route. Nature has placed insuperable and insurmountable obstacles in all the routes north of the parallel of 32 degrees. She has piled up her mountains, "mountains high." On the summit of these are the eternal Glaciers, and in the defiles and valleys, a nine months winter.

From the new settlements on the *Eastern boundary* of Kansas and Nebraska, and St. Paul in Minnesota, the whole of this country is yet in its primitive wilderness state. The Red Man still roams over its prairies and mountains in quest of game and plunder, and as the Ocean to the seafarer, so is this wilderness to the emigrant, it is only traversed as a highway to countries beyond its limits.

The central portions are an unprofitable, irreclaimable wilderness, without timber and for long stretches without water, with scarcely an oasis to relieve the monotony of its dreariness, it is the great American desert, in crossing which the wayfarer has more to dread, than the mariner that dares the deep, not only on account of the inhospitable character of the country, but also from the hostilities of the native savages, besetting his path and seeking his destruction. In the face of these facts, it would show a temerity bordering on insanity, in any one to be found advocating the superior claims of the northern

route, the Mormon route, the *great central* route, or the Albuquerque route.

If the secretary of war's report is considered by any one, as partial to southern interests, let him enquire of the president of the Illinois Central Railroad the expense of that Company in clearing their track of the superabundant snows of the past winter. His answer will satisfy the most incredulous as to the fallacy of advocating any of these routes.

Let us now examine the claims of the Southern or Texas Route. In the first place it is nearly a thousand miles shorter than the Northern Route, and in the second place it costs only about one-half as much as any one of the others. There are no mountains to go over or *under*, no grade exceeding 66 feet to the mile, and this only for a short distance. It is located on the parallel of 32, through the State of Texas for a distance of 800 miles. Taking a belt of country of 200 miles in width, with this parallel for a centre through the entire length of the State, I venture to affirm, without fear of contradiction, that it is unsurpassed in fertility of soil, salubrity of climate and all the great natural resources which, when developed, go to make a highly civilized and populous country. It abounds in minerals of every description, iron ore of the purest quality exists in great abundance. Extensive quarries of red and white freestone abound throughout the country. On the Trinity and some other parts of the State, are quarries of a pure white stone, soft and easily wrought to any shape or form, but on exposure to the atmosphere, it becomes a perfect freestone, as solid as marble. The forests contain an infinite variety of timber, suitable for building and ornamental purposes. Live Oak, Cedar, Pine, Oak, Ash, Walnut, Hickory, Pecan, Mulberry, Cypress, Holly, and the beautiful flowering Magnolia.

Among the agricultural productions, most naturally adapted to the soil and climate, and which now form a chief and important article of commerce, cotton stands pre-eminent; this is the great crop of Texas, and the source of much of its wealth and power. Sugar Cane grows luxuriantly throughout the State, but its culture will not be extensive, nor will the sugar of Texas ever compete with Louisiana. Tobacco grows almost spontaneously throughout the country. It is an important production, equal in quality to that of Cuba, and will soon become an article of commerce and export. Breadstuffs of every description are produced easily and abundantly in every county. Two crops of indian corn annually, is a common thing; one planted in February and the other in July.

Fruits of every description are profusely plentiful. The fruits of the tropics and the north, alike flourish in Texan soil. The fig is common, the peach unrivalled, the nectarine, quince, and grape luxuriant, and these

side by side, grow in the same sun and soil with the plum, apple, and papaw. The orange, lemon, and lime, the pine apple, and olive ripen together. Pecans, walnuts, and hickory nuts are here abundant. Garden vegetables of every description, and melons are easily cultivated, and yield a rich return to the hand of industry. All who have visited Texas concur in ascribing to it a climate unsurpassed. Though varying with location from tropical to temperate, it is remarkably pleasant and salubrious. It is modified by so many favorable circumstances, as to possess all the genial influences of Louisiana, without its attendant evils. A country possessing these desirable qualifications and advantages, cannot remain long in an uncultivated state, and such is the case with Texas. A strong, healthy, industrious army of emigrants, of over 100,000 souls, settled within her borders last season. The greatest share of these seek the line of the railroad. Nearly all would locate along this line, if the lands were in market. But all the public lands lying between the parallels of 31 and 33, are reserved from sale by the government, until the Railroad Company locate their road.

The valley of the Rio Grande is situated about equidistant from the Eastern boundary of Texas and San Diego, on the Pacific. It produces the necessities of life in great abundance. The grape, the apricot, the peach and the pear grow to perfection, and in great quantities. Wheat of most excellent quality, and corn in great abundance are raised above and below El Paso. The census of 1850 gives for New Mexico a population of near 70,000, nearly all of whom reside in this valley, and would receive their imports through this road whenever it is in operation to El Paso. The climate of New Mexico is temperate, constant, and healthy.

Col. A. B. Gray, United States Boundary Commissioner, as Chief Engineer for the Texas Western and El Paso Railroad Company, surveyed the route from Fort Chadbourne in Texas, to San Diego on the Pacific, running through El Paso, the Messilla Valley, the Gadsden Treaty Purchase, the Pimos Villages on the Rio Gila, down this to its mouth, crossing the Colorado at or near the American Fort, thence across the lower part of California to San Diego. Col. Gray's Report is not yet published, but will be laid before the public in a few days. I have read it in manuscript. It is more full, and gives a more minute description of the country, than the report made by the engineers in the employ of the United States. It is accompanied with maps and drawings, and a profile of the line, all of which shows a most favorable route for the location of the World's Great Highway. It traverses a country susceptible of cultivation nearly the whole distance, and is already settled at short intervals along the whole line.



It is blessed with a mild and healthy climate, free from the enervating influences of tropical heat, without danger of detention, or loss of life from the drifting snows of a northern winter. Along this line a man may work every day in the year, and when the road is completed, we may safely depend upon the cars running the year round.

And in addition to these superior advantages over all other routes, Texas offers 16 sections, or 10,240 acres of her choice lands for every mile of road built through her State. These lands of themselves, if properly managed, are sufficient to build and equip the entire road to El Passo. EL Passo.

#### PROCEEDINGS OF GENERAL RAILROAD ASSOCIATION.

We have received a copy of these proceedings from John P. Jackson, Esq., President of the Convention. The meeting was composed chiefly of Delegates from the Eastern Railways; but of the most important roads. There were reports and discussions on nearly all railway subjects. Some novelties were advanced. Among others the employment of a physician on the main line of railways. The proposition seemed to intend that he should be a sort of medical witness to give the truth in case of railway disasters. The proposition, however, did not meet with favor.

At the close of the meeting the President made an address which contained some important suggestions. Among other things, he said, that facts had been submitted to them, "indicating great improvements, and diminished expense in the consumption of coal by locomotive engines, and giving assurance of the attainment at an early day of the general use of coal by railroads."

This we consider one of the most important improvements, yet to be made in railway management.

#### COAL AT EVANSVILLE, IND.

Our readers will remember our notice some time ago of experimental borings and the commencement of digging a shaft for coal at Evansville, Ind. The boring demonstrated that a bed of coal, 18 inches thick, existed at the depth of 70 feet, another 30 inches thick at the depth of 170 feet, and another 50 inches thick at a depth of 270 feet. This evidence determined Mr. Kersteman, the proprietor, to dig a shaft 7½ feet by 15. This work has now occupied several months, but has at length reached the lowest bed of 50 inches, which, it is thought, will prove profitable working. The editor of the *Evansville Journal*, who has visited the mines in person, comes to the following conclusions:

"1st. That the Bodiam mines contain as good and workable a vein of coal as any mines on the Lower Ohio.

"2nd. That the quality of coal is at least equal, and believed by those who have tested

it by burning, to be superior to the productions of any mines yet worked below the Falls of the Ohio, or elsewhere in the so-called Illinois Coal Basin.

"3d. The location of the mines is such that coal can be delivered in boats upon the river at a less expense than at any other point, and with far more extended advantages both for home sale and shipment."

This is certainly a great event for Evansville, and will add materially to its advantages. The miners, on April 7, had a unique procession in honor of the successful opening of the bed, which is thus described:

"The American flag was carried in front, and another planted on the first cart of coal, the load consisting of one immense lump. A painted banner with appropriate devices described upon it, was also borne in the van. Following were the miners, and then twenty carts filled with the first coal dug up from the Bodiam mines.

"After marching along the prominent streets, the procession halted at the corner of Main and First streets. Here it was announced that all the coal in the procession belonged to the miners, and was to be sold for their benefit. Mr. Henry Gumberts mounted the first cart, as auctioneer, and put it up at public auction, as the first load of coal ever sold from the Bodiam mines. It was started at five dollars, and soon but two competitors were left in the field. The glory of having bought the first load of coal from these mines, belongs to our fellow citizens Messrs. Kratz & Heilman, Foundrymen. Mr. Wm. A. McRea bid as high as forty, then stopped. But Messrs. K. & H. would have gone at least seventy-five dollars. They are enterprising men, and have a correct appreciation of the value of these coal mines to their own kind of business and to the prosperity of the city. The sale then proceeded as follows:

1st load	do	Kratz & Heilman.....	\$ 45 00
2d	do	John Ingle, jr.....	15 00
3d	do	Decker & Kramer.....	10 00
4th	do	John Ingle, jr.....	10 00
5th	do	Tenney & Sorenson.....	10 00
6th	do	Washington Hotel.....	15 00
7th	do	John Ingle, jr.....	10 00
8th	do	".....	10 00
9th	do	Kratz & Heilman.....	10 00
10th	do	Samuel Orr.....	10 00
11th	do	Decker & Kramer.....	10 00
12th	do	Nathan Rowley.....	10 00
13th	do	John Ingle, jr.....	10 00
14th	do	W. Kersteman.....	5 00
15th	do	City Mills.....	15 00
16th	do	Ben Stinson.....	10 00
17th	do	John Ingle, jr.....	10 00
18th	do	Chas. Viele.....	10 00
19th	do	Mayor Hopkins.....	10 00
20th	do	John Ingle, jr.....	105 00

Total.....\$340 00

"Messrs. Eggleston & Co., Foundry Proprietors, started the last load at fifty dollars. At ninety dollars Kratz & Heilman stopped bidding. George Wolfelin bid ninety-five; Eggleston & Co., one hundred dollars. John Ingle, Esq., "pitched in" for one hundred and five dollars, and took it. The sale of these loads of coal, at such prices, was highly

gratifying, and a compliment to the occasion, as well as a reward to those more directly interested."

After the sale the procession proceeded to the hotel and completed the festivities by a dinner.

The advantages accruing to Evansville must be great, and we doubt not her people will know how to make good use of them.

## Railroads.

#### PENSACOLA AND MONTGOMERY RAILROAD.

The following estimate of business on a railroad between these two seaports, we find in the *Florida Democrat*:

"The general estimate of the road between Montgomery Alabama, and Pensacola, has been published by the Chief Engineer. The following is an extract, showing cost of road, and income to be derived from the first year's business:

Length of line, 160 miles, cost for a first class road—\$3,227,000.

General estimate of business of the road first year after construction:

40,000 passengers between Montgomery and Pensacola.....	\$200,000
Mails, \$200 per mile.....	32,000
40,000 bales cotton.....	40,000
50,000,000 feet lumber.....	125,000
Coal freight.....	166,250
Other down freights.....	20,000
Return freights.....	50,000

633 250

233,300

Equals 11 per cent on its cost.....\$399,950

The operation of a Railroad for the first year, is hardly any criterion to judge of its paying resources. All great lines in the course of a few years, double, and often times quadruple the business done at the commencement. In the event of a continuous line to Cincinnati, the traffic, both passenger and freight, would be greatly increased. The above estimate, however, is based upon the business done on the Montgomery and West Point Railroad."

#### SOUTH CAROLINA RAILROAD COMPANY.

The annual convention of stockholders of this company was held in Charlestown, Feb. 12. Among the proceedings, we find a resolution requesting the directors to turn their attention to the tariff of freights, between Charlestown and Hamburg, and that all freight and compensation should be directed with a view to a fair compensation to the company.

The report of the committee appointed at the last annual meeting, to report upon the resolution, declaring it to be "expedient for the Directors of said Bank, at their considerate discretion, to call in another instalment of five dollars upon each share of the capital stock of said Bank within the ensuing twelve months," was postponed until the next annual meeting.

The following important resolutions were



referred to the committee having in charge the report of the president of the road:

*Resolved*, That in the estimation of this meeting, it is essential that a sinking fund should be created, with a view to the extinguishment of the Company's bonded debt.

*Resolved*, That for the purpose of forming such sinking fund, the President and Directors are hereby authorized and directed, to appropriate from the earnings of the Company annually, a sum not less than \$50,000, or as much more as they may see fit, commencing with the present year—the same to be paid over in quarterly instalments to the Commissioners of the Sinking Fund.

*Resolved*, That it shall be the duty of the Commissioners of the Sinking Fund, so constituted, to receive from the President and Directors the sum annually appropriated, and to invest the same with all accruing interest and dividends, as received, in the bonds of this Company, State of South Carolina or City of Charleston stock, or in the stock of the United States, or of the States of Georgia, North Carolina, or Tennessee, or either of them, as in their judgment may be most for the interest of the company.

*Resolved* That this fund so formed shall be held applicable to the company's debt, and shall not under any circumstances be appropriated to any other purpose.

The meeting then adjourned for the day.—On the following morning "the Committee to which was referred the Annual Report of the South Carolina Railroad Company," submitted the following report, which was unanimously concurred in:

The Committee to which was referred the Annual Report of the South Carolina Railroad Company, report that the statements made in that report exhibit a most favorable condition of the finances of the road. The gross income has steadily increased for the last ten years. Each year during that period the income has increased, until from the sum of \$532,860.95 in 1844, it has reached in 1854 the sum of \$1,363,008.18—being more than one hundred and fifty per cent. added. Whilst this increase during the last year exceeds that of the previous year \$147,739.57, the actual indebtedness of the company has been reduced from \$3,523,652.81 at the close of the year 1853, to \$3,415,047.24 at the close of the year 1854; showing that \$111,605.57 of the debt has been paid. The Committee cannot, therefore, but congratulate the Company on the prosperous state of its affairs. The Committee were not called upon to examine further into the accounts than as exhibited in the published statements, nor was there time to do so even if they had been. As to the actual condition of the road itself, and of the working thereof, the Committee were not intrusted with those subjects, and therefore made no examination, and of course have nothing to report.

The Committee unanimously recommend that the Report be accepted, and published with the proceedings of this meeting.

The same Committee, to which was referred the resolutions relative to a sinking fund, after due deliberation, beg leave to report for adoption the first of those resolutions, and that the other resolutions be laid on the table.

After a prolonged discussion, in which Messrs. Holmes, Conner, Caldwell, Moise, and others, took part, General Buchanan moved "that so much of the report of the Committee of Five as recommends the adoption of the first resolution relative to the sink-

ing fund, be laid on the table," which was carried; whereupon he then moved "that the rest of the report of the same Committee be adopted," which motion was also carried.

The report of the President of the Bank was called for, and the following report submitted.

The Committee of Three, to whom it was referred by a resolution of your last annual meeting (to consider and report upon) a proposition to authorize the Directors of the Southwestern Railroad Bank, at their "considerate discretion, to call in a further instalment of five dollars upon each share of the capital stock of said bank, within twelve months then ensuing," have had the same under consideration, and after a free conference with the President and other officers of said bank, access to the books, and a full expose of its business operations, from its commencement to the present time, are constrained to the conclusion, that unfortunate management and bad luck attended its earlier years. Yet under its more recent and present administration, we are encouraged and assured that time, with the prudence and faith, and energy, by which its affairs have been conducted, would retrieve its early losses, and restore its capital in prime integrity, a portion of which has already been regained. The last annual report of its President, which is now before you, and which we believe to be full and fair, is a rare exhibit of both good fortune and careful management.—Its exchange operations, amounting to over four millions of dollars, are unattended with loss, even in this crisis of pecuniary pressure and trial.

The suspended debt of the bank, consisting of exchange under protest and in suit, is not large; of bonds and stocks, of larger amount, but mostly good; of notes under protest and in suit, amounting to over \$50,000, many of them believed safe, is altogether not unreasonable or seriously embarrassing; its dividends have been at least satisfactory, and its surplus profits more so.

Your committee feel sure that your bank has the best charter in the State—that its management, in their opinion, is worthy of your confidence—that its capital might and ought to have been long since increased for your advantage, and therefore recommend the adoption of the following resolution:

*Resolved*, That the President and Directors of the Southwestern Railroad Bank be, and they are hereby authorized, so soon as they may deem it prudent so to do, to call in from its stockholders another instalment of five dollars upon each share of the capital stock of said bank.

The following statement of the operations of the Bank from January, 1854, to January, 1855, was submitted by Mr. Rose, the President:

The discount line of the bank for the past year amounts to two millions eight hundred and ninety-six thousand four hundred and five 40-100 dollars.....	\$2,895,405 40
Sterling Exchange purchase—three hundred and ninety thousand one hundred and seventy-five 68-100 dollars.....	390,175 68
Sterling Exchange sold—two hundred and ninety-three thousand and sixty-four 40-100 dollars.....	293,064 40
French Exchange purchased—one hundred and forty-two thousand four hundred and forty-eight 62 100 dollars.....	142,448 62
French Exchange sold—one hundred and thirty-four thousand five hundred and four 57-100 dollars.....	143,504 37
Domestic Exchange purchased—three millions eight hundred and thirty-three thousand five hundred and twenty-three 30-100 dollars.....	3,833,523 30

Domestic Exchange sold—three millions four hundred and forty-five thousand two hundred and forty-nine 18-100.....	3,445,249 18
The profits of the banks for the past year amount to.....	63,924 65
From which deduct dividends for the year.....	52,348 50
Leaving a surplus profit of.....	11,576 15
To which amount at credit, 1st January, 1854.....	69,721 16
Leaving a balance at credit of profit and loss 1st of January, 1855.....	81,297 81
This account has been also charged with loss sustained on domestic exchange, the operations of the previous year.....	1,320 17

Sterling bills to the amount of thirty thousand dollars have been returned under protest: we have securities in hand for twenty thousand dollars, with the assurance of a settlement of the balance in the course of the present year. This debt being settled, the entire exchange business of the year will have been transacted without loss.

The apparent large reduction of discounts from the report of the previous year is owing to the substitution of the bonds of the road in payment of their discounted paper. Since the last meeting of the stockholders the banking house has been purchased and improved, the interest on the outlay being much less than the rent we were paying.

The accounts of the bank have been examined by the committee from the board and found correct.

The report of the President of the bank and the foregoing report of the committee were unanimously adopted; action upon the resolution recommended by that committee being postponed.

The following gentlemen were elected to the directory for the ensuing year:

*Directors in the Road.*—Wade Hampton, Andrew Wallace, James Rose, Alfred Huger, John Caldwell, C. J. Shannon, L. J. Patterson, John Bryce, C. M. Furman, G. A. Trenholm, Henry Gourdin, W. C. Dukes, W. C. Gatewood, C. T. Mitchell, A. Burnside.

*Directors in the Bank.*—James Rose, W. Patton, I. S. Cohen, W. C. Gatewood, G. Hopley, G. B. Locke, O. B. Hilliard, H. W. Peronneau, H. Hall, P. J. Porcher, James Gadsden, J. S. Payne, W. J. Grayson.

#### MISSOURI PACIFIC RAILROAD.

At the election for Directors in the above Road, held on Monday, the 26th inst., the following gentlemen were chosen to serve for the ensuing year, viz:

\*Robert M. Renick, \*James E. Yeatman, \*John C. Rust, Nathan B. Holden, J. How, Philip S. Lanham, James H. Lucas, Wayman Crow, \*Charles K. Dickson, \*Hudson E. Bridge, \*Robert K. Woods, \*Alfred Vinton, \*Wm. M. McPherson. (Those marked thus \* were re-elected from the previous Board.)

At a meeting of said Board, held March 28, for the purpose of organization, etc., Hudson E. Bridge was elected President, Alfred Vinton Vice President, and Samuel Copp, Jr., Secretary and Treasurer.

The following resolution was unanimously adopted at a meeting of the old board, held on the 23d March, was ordered to be made public, viz:

*Resolved*, That the thanks of the board are due, and are hereby tendered to Hudson E. Bridge, Esq., for his faithful, energetic and able performance of the duties of the office of President of the Pacific Railroad Company, and that we have heard with regret his contemplated retirement.



## Miscellaneous and Mechanical.

## INVENTOR'S MANUAL.

BY G. H. KNIGHT, PATENT ATT'Y, 141 MAIN ST., CINCINNATI.

A patent for fourteen years, is granted to the first inventor of a new and useful Art, Machine, Manufacture or Composition of Matter, not heretofore known in this country, nor published or patented in any foreign country. Patent office fee, \$30.—*Act 1836, Sec. 6-7.*

**DESIGN.**—A patent for seven years, is allowed to any citizen of the United States, who originates a new carving or sculptural composition, or a new shape or configuration of any article of manufacture, or a new, ornamental, or useful design, pattern, or picture, to be worked into, or printed, or painted, or cast, or otherwise attached to any manufacture of metal, or other material, or to any woven fabric. Government fee, \$15.—*Act 1842, Sec. 3.*

A Caveat is useful as a precautionary step, in cases where the inventor requires further time to mature his application or invention, and entitles the party (for a year) to notice of any interfering application subsequently filed. Government fee, \$20.—*Act 1836, Sec. 12.*

Application for Letters Patent, should be made within two years after the first sale, or public use of the invention—and must be accompanied by a Model, (where the case admits of one,) or a Specimen of Ingredients and Composition; also Petition, Oath, Duplicate Drawings, Specification, and Fee, (\$30.)—*Act 1836, Sec. 6; Act 1839, Sec. 7.*

Models must be neat and substantial, not exceeding in dimensions, a cubic foot, and fastened by other means than gluing.—*Office Rule.*

Joint Inventors are entitled to a joint patent, but neither can claim one separately.

A patent may be issued to an assignee or to a co-inventor, but not jointly to an assignee and inventor *as such*, but by suitable assignment, can be issued to them as joint assignees.

The heirs of a deceased inventor, are entitled to apply for and receive a patent.—*Act 1836, Sec. 10.*

The application must, in all cases, be made by the inventor—if alive.—*Act 1836, Sec. 6.*

Residence in United States for entire year next preceding application, and declaration of intention to become a citizen, entitle a foreigner to claim a patent on the same terms as a citizen.—*Act 1836, Sec. 9.*

By a recent rule of the Patent Office, two or more machines are not allowed to be the subject of one patent, even although used to make a single article.

Patentees, or their assignees, are required to affix the date of the patent on each article offered for sale, (under a penalty of not less than one hundred dollars) and the same pe-

nalty is incurred, by marking with the word, "patent," or like phrase, an unpatented article.—(*Act 1842, Sec. 5 and 6.*)

Assignment may be made previous to application.

Assignments should be recorded within three months—recording fee, \$1, \$2, or \$3.

In the case of two or more inventors, he who *invents first*, has the prior right, if he had reduced the invention to a practical form by drawing or otherwise, and has used reasonable diligence in adapting and perfecting it.—*1 Story, 590-596.*

**RE-ISSUES.**—Patents with defective specifications, may be reissued in an amended form. Government fee, \$15.—*Act 1836, Sec. 13.*

**ADDITIONS.**—The original patentee [*inventor 3 Story, 171-173*] may procure an addition to be made to the patent of an improvement made by him subsequent to the original grant. Government fee, \$15.—*Act 1836, Sec. 13.*

**EXTENSION.**—Application for extension must be at least three months prior to the expiration of a patent. The chief points to be established are: 1st, ascertained value of the invention; 2d, account of loss and profit which has accrued from the invention; 3d, efforts made and difficulties incurred in maturing and introducing the invention. Government fee, \$40.—*Act 1836, Sec. 18; Act 1848, Sec. 1.*

The *product* of a patent machine is not patent property.—*3 M'Lean, 296-7.*

It is an infringement of a patent, to make the thing patented, although done at the request of another.—*3 M'Lean, 283.*

The use of a machine under a license, upon the failure of the conditions imposed, becomes an infringement.—*3 M'Lean, 226-9.*

Where the claim is for a *combination*, the use of any number of parts less than the whole, is not an infringement.—*3 M'Lean, 454.*

The recovery of damages against a trespasser is no bar to another suit, if he continues the trespass.—*4 Mason, 13.*

The sale of the materials of a patented machine by the sheriff, on an execution against the owner, does not subject the officer to action for infringement—he *cannot guarantee the right to use—nor does it pass.*—*1 Gall, 485.*

Mere colorable differences or slight improvements, cannot shake the right of the original inventor.—*2 Gall, 54.*

It is incumbent upon the plaintiff to show that the defendant has sold [or used for profit] an article, substantially resembling the one for which he, the plaintiff, has obtained his patent.—*4 Wash. CC, 71.*

It is incumbent upon the plaintiff to show that the infringement took place after the date of the patent, but if the defendant attempts to void the patent, by showing that the patentee was not the original inventor, the patent will be considered as relating back to the original discovery.—*4 Wash. CC, 72.*

The question of identity or dissimilarity, is for the jury.—*4 Wash. CC, 543.*

One who improves upon an original patent, has no right to use the original, nor has the original patentee a right to use the improvement without license.—*1 Peters, CC, 399.*

The right to the patent belongs to him who is the first inventor, even before the patent is granted; and therefore, any person who, knowing that another is the first inventor, yet doubting whether that other will ever apply for a patent, proceeds to construct a machine, of which it may afterwards appear he is not the first inventor, acts at his own peril, and with a full knowledge of the law, that by relation back to the first invention, a subsequent patent may cut him out of the machine which he has erected.—*2 Wash. CC, 345.*

## THE UNFORTUNATE ERICSSON INVENTION.

The Ericsson experiment is at an end. The invention is conceded to be a failure, and poor Ericsson is a ruined man. He has spent all his fortune in building his caloric ship, and in the experiments he has made on the vessel. He has done more, he has spent all his wife's fortune; which was great, and she too is beggared. But the worst of all is that it has led to such recrimination and alienation that they have separated, never to be united again perhaps. Had he been successful, his name would have been enrolled with that of Columbus, Newton, Fulton, and other men of illustrious renown. But he has failed; he has lost all; he has introduced ruin into a once loving and happy home; and the world coldly looks on and says, "I told you so."—*Boston Jour.*

We are not of the number who would be disposed to treat the failure of an inventor in the cold "I told you so" way. Yet we cannot help suggesting that the misfortunes of the persevering Ericsson should not be lost on the world. There is every year a tremendous amount of capital and valuable time and energy *lost* or wasted, which is the same on attempts which a moment's calm reflection would show to be futile. This time, if spent in devising that which is possible, would add greatly to the progress of the world. Let us see then how far we may consider this attempt a waste of genius and time.

Water when converted into steam occupies 1000 times the space that it does in its liquid form. Before, then, entering upon any expensive experiments, involving the consumption of a large amount of time and capital, it would have been prudent to have ascertained with nicety the exact amount of expansion, the heat necessary to convert a given quantity of water into steam, would impart to air. This falls greatly below the expansive power of water, hence the failure of the *air-expansion* engine. It is utterly useless to attempt, by a *less* power, to supplant a *greater* one. If water possesses the greatest expansive power of any available substance, improvements in motive power must be looked for rather in the perfection of the machinery used in develop-



**28**  
**PLATT STREET.**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
 Prosser's Patents.  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
 Countersinks, Cutting Bars and Pall-  
 Lever Wrenches.  
**WHALEBONE & STEEL WIRE BRUSHES.**  
**Artesian Well Tubes**  
 Screwed flush inside and outside.  
**FREE-JOINT TUBES**  
 For Core-Bars, Awn-  
 ings, Railings,  
 Leaders, &c. &c.  
**PATENTED**  
**HOLLOW SLAB WATER TUYERES,**  
 For Smiths' use, and  
**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**  
 for warming air, boiling water and heating ovens.

**ANNULAR**  
**Surface Condensers**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**  
 For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length.)

**CAST-STEEL CANNON**  
 of any calibre.

**PATENTED CAST-STEEL TIRES,**  
 For Railway Wheels. Railway Axles and Springs.

**SHAFTS,**  
 For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

**FRIED. KRUPP,**  
 Essen Rhenish Prussia,

Represented solely in the United States by

**THOMAS PROSSER & SON,**

**28**

PLATT STREET, New York



(On Baltimore & Ohio Railroad, midway between Baltimore and the Ohio River.)

**MANUFACTURERS of Engine Lathes, Planing Machines, Drill Presses, Hand Lathes, and other Machinists Tools.** These tools are built in a superior manner, from the very best materials, and are particularly adapted for railroad shops and all others repairing first rate machinery. Our location is very advantageous for shipping work to the West or South. Orders and communications receive prompt attention. Address  
 nov9-6m. **SHRIVER & BROTHERS, Fulton Works, Cumberland, Maryland.**

**DURYEE & FORSYTH'S**  
**PATENT**  
**PLATFORM SCALES.**



**WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.**

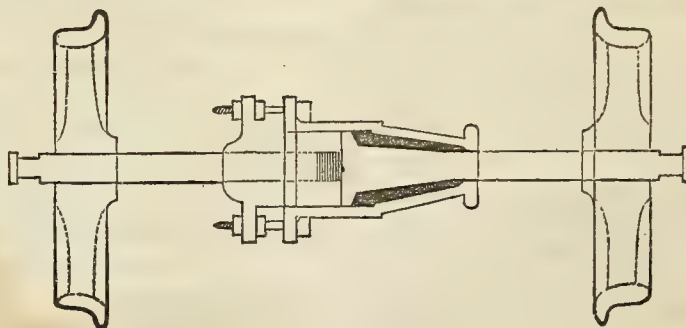
We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.  
**HEWSON & HOLMES,**  
 53 and 55 Walnut-Street.  
 dec27

**STEREOTYPE FOUNDRY,**  
 AND AGENCY OF  
**L. JOHNSON & Co.'s TYPE FOUNDRY.**

**C. F. O'DRISCOLL,** (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of **STEREOTYPING,** including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND, **AT THE FOUNDRY PRICES.**

**C. F. O'DRISCOLL,**  
 No. 167 Walnut Street,  
 Cincinnati, O

**DENNEY'S DIVIDED CAR AXLE.**



**PATENTED JANUARY 31ST, 1854.**

**THE ATTENTION OF RAILROAD COMPANIES** is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
 Christiana, Pa.

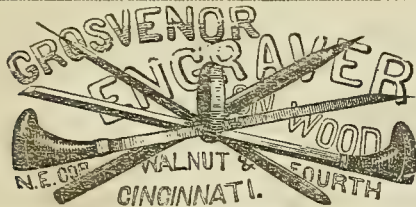
Or, to **CHRISTIAN UMBLE,**  
 Gap, Pa.



# T. N. RAFFINGTON, GENERAL ENGRAVER,

North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,

CINCINNATI.



## BANK NOTE ENGRAVING.

DANFORTH, WRIGHT & Co.,  
No. 25 West Third Street, Cincinnati.

Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

Rawdon, Wright, Hatch & Edson,

BANK NOTE  
ENGRAVERS AND PRINTERS.

Also, engraved in a style corresponding in excellence  
with that of Bank Notes—

RAIL ROAD, STATE, AND COUNTY BONDS,  
BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order  
of a superior quality.

The above office is under the supervision of  
GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.  
mr3

## J. S. BROWN,

WASHINGTON, D. C.,

AGENT FOR OBTAINING PATENTS,

IN THE

UNITED STATES AND EUROPE.

PREPARES Specifications, Drawings, and all other  
papers required by the inventor in obtaining or dis-  
posing of Patents. He will also furnish any information  
relating to inventions, and the mechanical arts gener-  
ally, which may be got from books, periodicals, or the  
U. S. Patent Office. The most prompt and faithful at-  
tention to their interests may be relied on by those who  
may intrust their business to him. Communications  
attentively considered and immediately answered.  
April 12, 1880.

## ENGINEERS' & SURVEYORS' INSTRUMENTS.

JAMES FOSTER, Jr.,

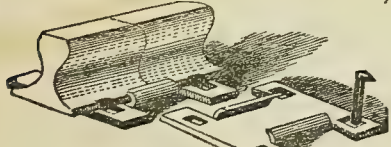
SOUTH WEST CORNER OF FIFTH & RACE STS.

HAS FOR SALE, OF HIS OWN  
MAKE, Levels, Transits, Theo-  
dolites, the Dumpy or Gravatt's Level,  
Circular Protractors of Troughton &  
Simms and other models, Surveyors,  
Compasses, Pocket Compasses with  
and without sights, in great variety. All  
kinds of Land Chains; Ivory and Box  
wood Scales of all kinds; Drawing  
Instruments of all kinds, Measuring  
Tapes of all kinds, Magnets, Magnify-  
ers, Barometers, Thermometers, Spy  
Glasses, &c., &c. Repairing promptly  
attended to.

Dr. Locke's Hand Level always for  
sale. For construction and use, see R.  
Record of October 20th, 1853. mar1-tf



## RAILROAD SPIKES,



WROUGHT IRON

## Chairs and Fastenings.

THE undersigned will continue to manufacture with  
increased facilities, HOOK & FLATHEAD R. R.  
SPIKES, of all Patterns, WROUGHT AND CAST  
CHAIRS, and FASTENINGS, BOILER RIVETS  
BOLTS, SHIP and BOAT SPIKES, &c., &c.

The best quality of refined iron is used, and all orders  
filled with despatch. J. HOPKINSON SMITH,  
No. 25, South Charles-st.

Please direct the name in full.  
Baltimore August 31-1

# CLINTON ROBSON & CO., BRASS FOUNDERS,

No. 154 Front street, between Pike and Butler sts.,  
CINCINNATI OHIO.

STOP COCKS, Bibb, Flange, Valve, Gauge, and  
Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes,  
Couplings, Salt Well, and Hose Joints; Steam Whis-  
tles, Distillery Work, General Brassers, Anti Friction  
Metal, Spelter Solder, and Copper Rivets.

Pumps of all descriptions, Brass and Composition  
Castings, Dixon's best Black Lead Crucibles.  
Also, Dr. Ransom's Patent Constant Suction Pump  
for Railroad Water Stations.

## RAILROAD IRON.

I WOULD respectfully call the attention of Railroad  
Companies and Contractors to my facilities for

## NOTCHING RAILROAD IRON

Suitable to be spiked in the Chairs. My Portable Punch-  
ing Machines, for which I received Letters Patent, enable  
me to make contracts for punching iron at a less price  
than can be done with any other Punching Machine now  
in use.

Orders solicited, and work executed in any part of  
the United States. Address,

S. M'KENNA,  
jan11.-tf. Box 705, Cincinnati P. O., Ohio.

## NOTICE TO CONTRACTORS.

### Nashville & North-Western R. R.

PROPOSALS will be received at the Office of the  
Nashville and North-Western Railroad Company,  
for the Graduation and Masonry of said road, in sections  
of twenty or thirty miles.

The Company reserve the right to reject all the pro-  
posals, if none are satisfactory.

The length of the road is one hundred and sixty miles,  
and proposals are invited from contractors of ability  
for the entire work, including track, stating what  
amount of bonds, stock and cash will be received in  
payment.

Any information required, can be received by appli-  
cation to N. MACNEALE, Chief Engineer.  
Nashville, Tenn., 25 Jan., 1855. feb10lmj

## THOS. M. CASH,

PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway  
Companies, On Commission.

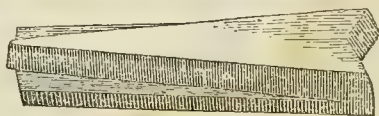
Office, No. 80, South Fourth-street, near Walnut,

PHILADELPHIA.

## REFERENCES

Richard Norris & Son, Locomotive Builders, Philad'a.  
Wm. D. Lewis, Esq., Pres't Catawissa R. R. Co. "  
Charles H. Fisher, Esq., "  
Jno. Caldwell, Esq., Pres't S.C. R.R. Co. Charleston, S.C.  
Pinckney Huger, Esq., Pres't N. E. R. R. Co. "  
Oct. 13-tf.

Important to Railroad Companies, etc.



Leavitt's Railroad Frog-Points,  
Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel,  
in a liquid state, can be moulded into any shape or  
form, are, by means of this valuable discovery, manu-  
facturing

## RAILROAD FROG-POINTS,

Lathe Mandrels, Gauges

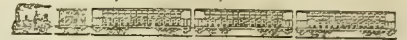
of every description for blacksmiths use; Steps for Mill  
Spindles and Shafting, Swage Hammers, and almost all  
the different variety of tools which are difficult to  
forge. Articles made in this manner, are much supe-  
rior to forged productions, as the steel out of which  
they are manufactured, loses none of the carbonic  
element, but retains it in all its original purity, while  
under the repeated heats to which it is subjected by the  
old and tedious process, it loses much of this valuable  
property. They are also produced in a much more per-  
fect state, needing little or no fitting or dressing, hav-  
ing all the accuracy of shape which moulded articles  
possess. They can, also, be furnished at one-half the  
cost of the others.

The qualities of the Frog points have been already  
tested by the Ohio and Mississippi Railroad Company,  
to whom the manufacturers are furnishing them through  
G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this  
valuable invention. LEE & LEAVITT,  
15 Walnut-st, Cin'ti.

N. B.—They would also call the attention of the pub-  
lic to their valuable and extensive assortment of cast  
steel saws, and circular saw mills, etc.

# NORTH, EAST, AND WEST!



BY WAY OF

Cincinnati, Hamilton and Dayton R.R.

WINTER ARRANGEMENT.

COMMENCING MONDAY, DEC. 11, 1854.

Passenger Trains will leave the Sixth-street  
Depot as follows:

FOR INDIANAPOLIS, CHICAGO,  
ST. LOUIS, &c., &c., &c.

At 6 A. M. and 2.15 P. M.,

Trains leave the Hamilton, Eaton, Richmond, Indi-  
anapolis, Terre Haute, Lafayette, Chicago, Galena,  
Rock Island, St. Louis, &c.

At 5 A. M.,

Dayton, Sandusky, Cleveland, Pitts-  
burg, Philadelphia, Baltimore,  
New York, &c.

At 2.15 P. M. and 4 P. M.

For Hamilton, Dayton and intermediate points.

At 5.20 P. M.,

For Hamilton, Richmond and intermediate points.

The 6 A. M. Train will connect at Richmond, at  
A. M., with Train of Indiana Central Road for Indiana-  
polis; arrive there at 11.30. A. M.; thence to Terre  
Haute, Lafayette, and Chicago, without detention.  
Time as short as any other route.

The 8 A. M. Train will connect at Dayton, at 10.30,  
A. M., with Mad River Train for Sandusky and inter-  
mediate points; also at Crestline at 4.20 P. M. with  
Ohio and Pennsylvania train for Pittsburgh, Philadel-  
phia, Washington, &c. The same Train will connect  
Clyde with Toledo and Cleveland Train to Toledo,  
Chicago, and intermediate points. Also, with Dayton  
and Michigan Railroad to Troy and Piqua, and with  
Dayton and Greenville Railroad to Greenville, Union  
and all points on Bellefontaine and Indianapolis Rail-  
road, at 2.45 P. M.

The 2.15 P. M. Train connects at Richmond with  
Indiana Central Train for Indianapolis Terre Haute,  
Lafayette, and Chicago. Also, with Train for Hager-  
stown and Newcastles.

The 4 P. M. Train connects at Dayton with Train for  
Troy, Piqua, &c.

For further information or tickets, apply to W. A.  
LATHAM, General Agent, at the Office, corner Broad-  
way and Front street, under Spencer House, or at the  
office on Walnut street, next door to the Gibson House  
or at the Sixth-street depot.

HENRY O. AMES, Sup'l.

The Omnibus Line will call for passengers, by leaving  
their name at the office. W. H. SMITH, Conductor.

## WINTER ARRANGEMENT. SAFETY—SPEED—COMFORT.

Cincinnati to Indianapolis.

St. Louis, Chicago, Galena and Rock  
Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON AND DAYTON,  
AND EATON & HAMILTON RAILROADS.

TO CHICAGO, in..... 15 HOURS  
TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route o  
any in the West, as it passes through the richest and  
most thickly settled portion of the State of Indiana. In  
taking this route, passengers will reach Terre Haute,  
Lafayette, Peru, Michigan City, Chicago, Rock Island,  
Galena and St. Louis, as soon as any other leaving  
Cincinnati, and with but little fatigue, in consequence of  
the superior manner in which the roads are constructed  
and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,  
LAFAYETTE, PERU, &c.

Trains leave the Depot of the Cincinnati, Hamilton  
and Dayton Railroad as follows, viz:

First Train—Lightning Express at 6 A. M.  
Second Train—Accommodation, at 2.15 P. M., con-  
necting at Richmond with train for Hagerstown, New-  
castle, &c., &c.

Third Train—Accommodation, at 5.20 P. M., for  
Richmond and intermediate points.

Returning, reach Cincinnati at 10 A. M. and 12 M.  
and 6 P. M.

Fare to Indianapolis.....\$3 50  
" Lafayette..... 50  
" Terre Haute..... 50

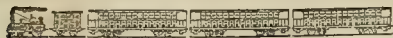
For through tickets and information, please apply at  
the General Railroad Ticket Office, No. 169 Walnut-st.,  
or to W. A. LATHAM, at Cincinnati, Hamilton and  
Dayton Railroad Office, corner of Broadway and Front  
streets, under the Spencer House, or at the Sixth-street  
Depot. JOHN W. SHIPLEY, Agent.

The Omnibus Line will call for passengers by leaving  
their orders at the offices.

W. M. H. SMITH, Conductor.  
feb. 8-17 D. M. MORROW, Superintendent.



**Baltimore & Ohio Railroad.**



**380 MILES BETWEEN WHEELING AND BALTIMORE.**

THIS Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
Through Tickets from all Parts of the West,  
ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Columbus,  
Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED  
**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILA-**  
**DELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**PHILADELPHIA AND NEW YORK RAILROADS.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericsson Steamers by Canal to Philadelphia and New York, and various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.  
**WM. G. HARRISON,** President. **JOHN H. DONE,** Mast. of Transportation, Baltimore.  
Je. 8†

**The Shortest, Quickest and Best**  
**ROUTE TO LOUISVILLE.**



**MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,**  
**MICHIGAN CITY, CHICAGO, GALENA, ST.**  
**LOUIS, AND NEW ORLEANS.**

**OHIO & MISSISSIPPI RAILROAD,**  
ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER notice, the Passenger Trains will run as follows:

**For Louisville and New Albany.**  
Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.  
Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

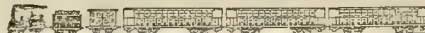
**Fare \$2 50.**  
**For Indianapolis.**  
Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.  
Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.**  
**For Lawrenceburg and Aurora.**  
Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.  
Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M. 2.30 P. M., 4.05 P. M., and 9.30 P. M.  
FREIGHT TRAINS for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.  
For further information see handbills, or apply at the Ticket Office, on Fourth street, north side, four doors from Vine street, opposite new Custom-house.

S. S. POST, Chf. Engr. and Supt.  
Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.  
Omnibuses call at all the principal Hotels, for each train.  
W. S. BABCOCK, Agent,  
Sept 5. St. Louis and Cincinnati Omnibus Line.

**1855. Winter Arrangement, 1855.**

**COMMENCING MONDAY, JAN. 29.**



**LITTLE MIAMI AND COLUMBUS AND XENIA RAILROAD.**—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

**FROM CINCINNATI TO**

To New York in.....	32½ hours.
To Philadelphia in.....	31½ "
To Washington in.....	29 "
To Baltimore in.....	28 "
To Buffalo in.....	16½ "
To Dunkirk in.....	15 "
To Cleveland in.....	9½ "
To Sandusky in.....	8½ "
To Pittsburgh in.....	14 "
To Wheeling, in.....	10½ "

**FOUR DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

**SECOND TRAIN.**—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

**THIRD TRAIN.**—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stop at all points between Cincinnati and Morrow.

**FOURTH TRAIN.**—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.  
Trains run by Columbus time—7 minutes faster than Cincinnati.

**FARE AND THROUGH TICKETS.**

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-boat Landing, or at the Eastern (Little Miami) Depot, East Front street.

WM. H. CLEMMENT, Superintendent.

P. W. SRADER, General Agent.

**OMNIBUS LINE.**

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

**COLUMBUS PIQUA, AND INDIANA RAILROAD.**



New route from Columbus, West and from Urbana, East.

On and after Monday September 19, 1853, two trains per day, (Sunday excepted) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a.m., and 3.30 p.m.—arriving at Urbana at 8.12 a.m., and 6.14 p.m. Returning—will leave Urbana, for Columbus, at 9.15 a.m., and 3.00 p.m.—arriving at 12.05 and 6.55 p.m.

The 4.50 a.m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p.m. train—arriving at Urbana in time to get supper and take the 5.35 p.m. train for Dayton and Cincinnati.

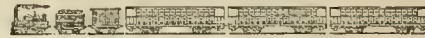
The 9.15 a.m. train from Urbana connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a.m.—arriving at Columbus at 12.05 p.m. in time for the 1 p.m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p.m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p.m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

Piqua, Sept. 18, 1853.

A. G. CONOVER, Sup.

**PERU & INDIANAPOLIS R. R.**



*Peru, Logansport, Wabash, Rochester, and Indianapolis.*

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also, connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.  
Indianapolis, March 22, 1853.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.  
On and after MONDAY Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M. stopping at Grant's Bend New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fairmouth, Callenville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laird's and Kiser's and arriving at Paris at 11.30 A. M.

Returning, leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, leave Lexington at 10 o'clock, A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leave Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train lie over night at Paris and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.  
J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices.  
oct. 17- CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis by Indianapolis & Cincinnati Railroad,**

**VIA LAWRENCEBURG,**

**IN connection with the OHIO & MISSISSIPPI RAILROAD.** Passenger Trains leave Cincinnati at 7.15 A. M., and 3.15 P. M. Arrive at Indianapolis at 11.30 A. M., and 8.30 P. M.

By morning train passengers arrive at Chicago in 14 hours, and at St. Louis in 28 hours.

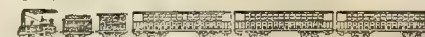
Freight shipped to Indianapolis and all other points West and North without delay at cheapest rates.

Cars run from Lawrenceburg to Terre Haute, Lafayette, Peru and Chicago, without unloading.

Office, foot of Main street corner of Water street.  
SIDNEY RICE, Agent.

Cincinnati Sept. 28, 1854.

**Terre Haute & Richmond R. R.**



**TERRE HAUTE, VINCENNES, EVANSVILLE, PARIS AND CHARLESTON.**

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1.30 P. M., (after the arrival of the trains from Cincinnati,) arrive at Terre Haute at 4.49 P. M. Passengers for Paris and Charleston take the cars of the Terre Haute and Alton Railroad, which leave daily at 7.30 A. M. Those for Vincennes and Evansville take the cars of the Evansville and Crawfordsville Railroad daily, at 8.30 A. M.

Passenger Train leaves Terre Haute daily, Sunday excepted, at 7 A. M. for Indianapolis, connecting with Trains for the East, Cincinnati, and Louisville.

**FARES.**

Indianapolis to Terre Haute.....	\$2 25
Terre Haute to Vincennes.....	2 25
" " to Evansville.....	4 00
" " to Paris.....	
" " to Charleston.....	

S. HUESTIS,

Terre Haute, March 12, 1855. Gen. Superintendent.

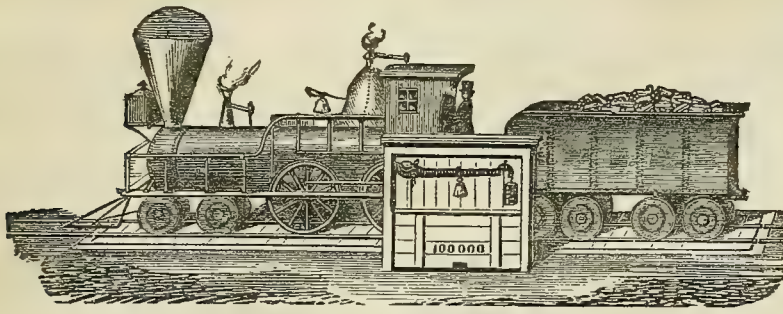


ISAAC RIGDON.

EDWARD C. RYLAND.

WM. HUDDART.

## OHIO SCALE WORKS.



**Rigdon, Ryland & Co.,**  
No. 39 Vine Street, between Front and Columbia streets,  
CINCINNATI.

WE are now prepared to furnish **Railroad Track and Depot Scales** of all sizes, which we warrant in every respect equal to any manufactured in the United States. Being practical workmen ourselves, we feel confident that we can furnish the West and South with as good an article and cheaper than can be bought East.  
Cincinnati, June 29, 1854.

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.  
They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of St and Machinery required for railroads. Particular attention will be paid to repairing, which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNYS & PECK,  
Louisville, Ky.

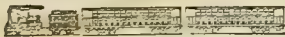
## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

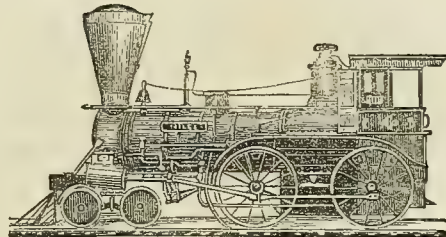
**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**ASHCROFT'S**  
**METALLIC STEAM GAUGE.**  
(BOURDEN'S PATENT)

THE subscribers offer for sale this valuable Gauge. It is adapted to Locomotive and other steam boilers, indicating with accuracy the continual variations of steam within the boiler, enabling the Engineer to maintain a uniform and safe pressure. Any of the Eastern Railroads may be referred to for proof of its importance and value.  
BRIDGES & BROTHER,  
esp. 16-17 64 Courtlandt St., New York.

## LOCOMOTIVE WORKS.



## NILES &amp; CO.,

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafing, &c., &c.  
feb. 13 1855 6m.

## Lightner's Patent Axle Boxes for Railroad Cars.

THE attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent below that of most boxes in use. They will save about 75 per cent in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs one TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and Testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.6. Office, No. Courtlandt st., New York.

## PROSSER'S PATENT

## Lap-Welded Iron Boiler Tubes.

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Awning Frames, Leaders, etc. Brass Boiler Tubes.

Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

Agents for Krupp's celebrated Cast Steel for Shafts Railway Axles, Tires, Platers' Rollers, etc.

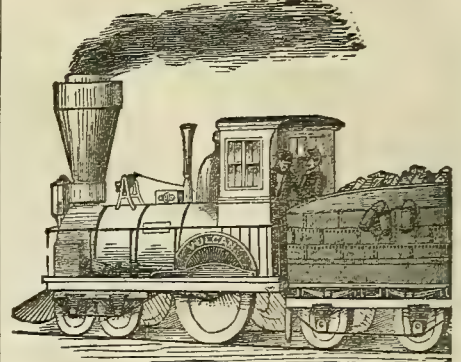
P. S.—All Tools necessary for the construction or keeping in order of Tubular Boilers.

THOS. PROSSER & SON

28 Platt street, New York.

au. 174

## Cincinnati Locomotive Works!



THE undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap. 20 MOORE & RICHARDSON.

## WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T & F. Wason, Springfield, Massachusetts.

## Railroad Car Findings.

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fitted Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

## LOCOMOTIVE ENGINE LANTERNS,

From the best Manufacturers, and at their prices. Car Hand, and Signal Lanterns.

## Cotton Duck for Car Covering,

Of any required width to 124 inches.

## ENAMELLED HEAD LININGS

Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan, and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

## Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Julian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers,

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.

10c6

## CAR MANUFACTORY,

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops, are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and switches of the most approved patterns.

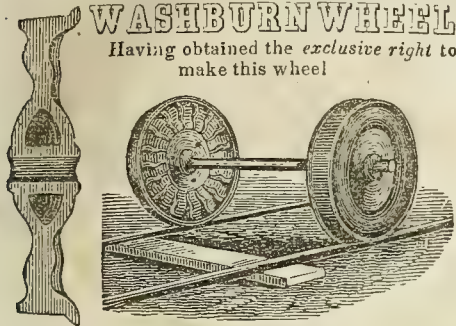
They also manufacture blacksmith tuyeres, Harris' Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan. 24th, 1852. Jan. 25-4



**FULTON CAR WORKS,**  
CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address KECK & HUBBARD,  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.



**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed to

DOUGLASS, SMITH & CO.,  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL  
**DAVENPORT, RUSSELL & CO.,**

**Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburgh, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16th JOSEPH DAVENPORT.

**S. C. THOMSON & CO.,**

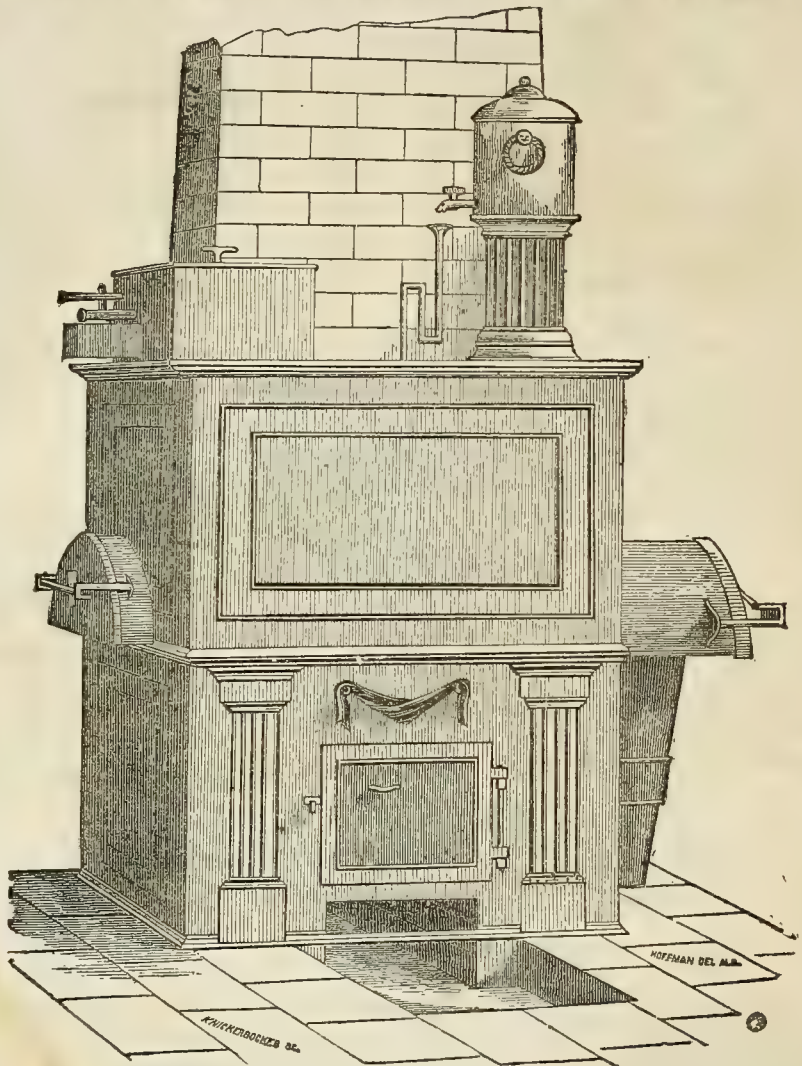
MANUFACTURERS OF

**PATENT PAD LOCKS,**

For Railroad Switches, Merchandise Cars, Stores, Cemeteries, Iron Safes, &c.,

Cor. Railroad Avenue and Market st.,  
n.12+ NEWARK, N. J.

**N. AUBIN'S GAS GENERATOR**

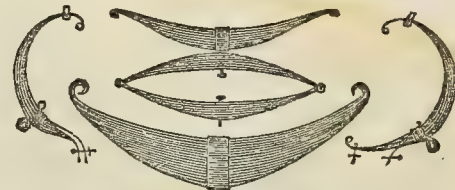


**T. WRIGHTSON & CO., Agents,**

167 WALNUT STREET, CINCINNATI, O.

**MCDANEL & HORNER,**

**LOCO- AND CAR**  
**MOTIVE SPRING**



**MANUFACTURERS, WILMINGTON, DEL.**

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to  
McDANEL & HORNER.

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge  
References.

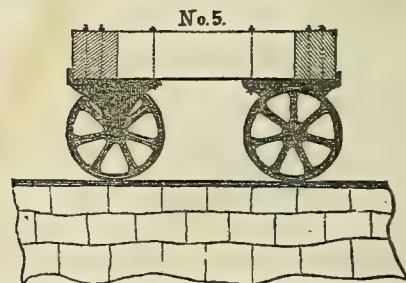
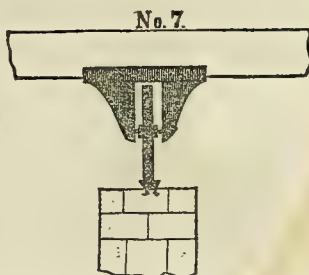
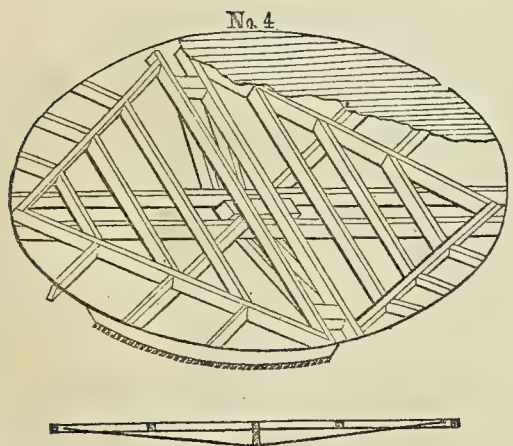
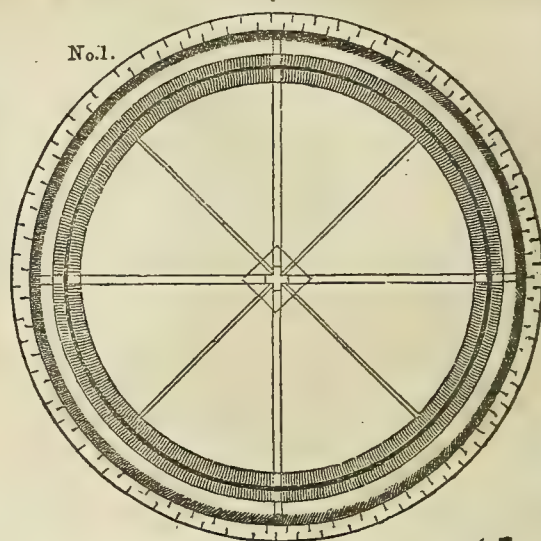
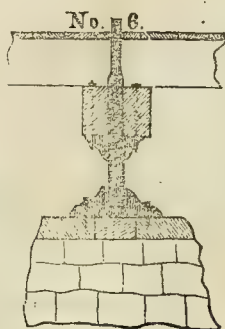
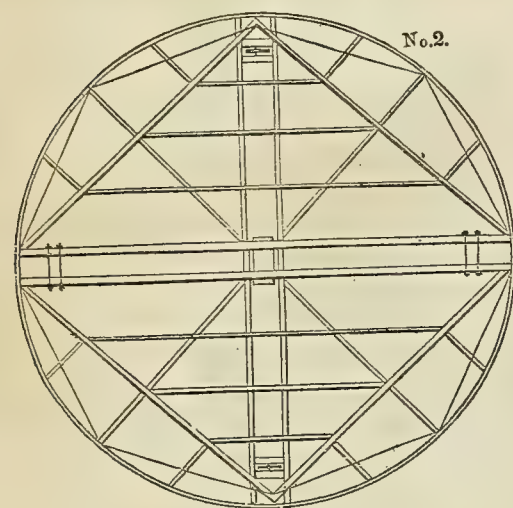
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## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua & Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer, Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroads, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Sup't, Marion, Ohio.  
Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, North Carolina.  
Central North Carolina Railroad.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.

Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony, President.

## DESCRIPTION OF PLAN.

Fig. 1. of the above cut, represents the foundations, consisting of Bank and Track Walls, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The Track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2. shows the framing.  
Fig. 3. is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4. gives a perspective view of rim, segments, decking, etc.  
Fig. 5. is an end view of the main trucks, with pedestals and wheels.

Fig. 6. is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7. shows a cross section of track wall, well, and pedestal.

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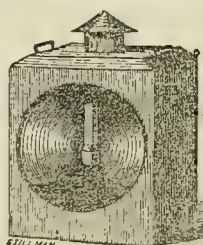
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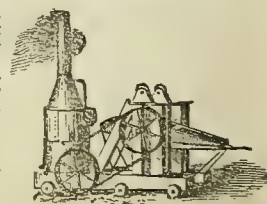
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# Railroad Record.

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## CINCINNATI:

THURSDAY MORNING, .....MAY 10, 1855.

## E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

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## STEUBENVILLE AND INDIANA RAILROAD.

There has been an entire re-organization of the Directory of this road, which is now composed of active business men, who will, no doubt, carry out the views of the stockholders, and hurry forward the road to completion.

Wm. B. Hubbard, Esq., of Columbus, has been elected President, and Mr. Woodward, recently of the Cincinnati and Wilmington Road, appointed Superintendent.

Both of these gentlemen are fully competent to the trust reposed in them, and will make their talents tell to the interests of both the public and those more directly interested in the financial welfare of the company.

**THE MEMPHIS AND LITTLE ROCK RAILROAD.**—Maj. Bradley, while at Brownsville, let the grading of the Memphis road, from that place, ten miles in the direction of White river, to Messrs. Wright & Mills.

The next ten miles east of that contract has been let to Mr. Wheat. Distance from Brownsville to White river 22 miles. Maj. Bradley hopes to let Mr. Wheat have 12 miles instead of 10. This would place the whole road from Brownsville to White river under contract.

Mr. Williams says the citizens of Prairie are taking stock freely, and all are sanguine in the belief that the road will be speedily completed.

We would remark, for the information of persons wishing to take stock in the Memphis road, that Messrs. S. H. Tucker and Jas. A. Henry, merchants of this place, have been appointed agents to receive subscriptions for the Memphis road, and have books for that purpose in their possession.—*Little Rock Gazette*.

VOL. III.—No. 11.

## THE GREAT PACIFIC RAILWAY ROUTE—CONDITION OF THE QUESTION—RESULTS OF SURVEYS.

The Congress of the United States is a body, which in its general action, does what it ought not to do, and leaves undone what it ought to do. Accordingly, some of the greatest questions which concern the Republic have been left unsettled, while laws have been passed, whose only effect is to disturb the public peace, or debauch the public morals. The Pacific Railway question is one of these left unsettled; if, indeed, it be not decided to do nothing. A wise and sagacious legislature, would have commenced surveys for a railway to the Pacific, immediately after the acquisition of California, and long before this would have had the work in actual construction. But precious time has been allowed to escape, and the contemptible jealousies about routes, have prevented the accomplishment of anything. It is not probable now, that Congress will do anything; and, hence, this noble work, if ever done, is left to private enterprise. We shall now see, who among the men of action and capital will seize upon the greatest opportunity ever offered for a gigantic, financial, and commercial speculation. There are men of all kinds of intelligence, especially in that wisdom which springs from conceit, who affirm with prophetic boldness, that a Pacific Railway will not pay. The same has been said of every enterprise, and of none more than those which have paid the best. The fact is, that the statistics of the Pacific Steamers, and of the Panama and Nicaragua Routes, prove conclusively, that a Pacific Railway will pay well, if it does not cost much over one hundred millions; and it can certainly be constructed for that. The Government, during the last year, has had all the routes between the Mississippi Valley and the Pacific surveyed, and the probable cost estimated. We give below the results, with such comments, as will enable the reader to observe the differences in the *elements*, and proper comparison.

### 1. THE ROUTES.

There were *six* routes proposed, viz:—

1. The Route from St. Pauls to Vancouver, near the parallel of 48°.
2. The Route from Council Bluffs to Benicia, *via*. the South-West Pass, near 42°.
3. Route from West Port to San Francisco, *via*. the Tah-ee-chay-pah Passes, near the parallel of 38°.
4. The same *via*. the Maddeline Pass.
5. From Fort Smith to San Pedro, near the 35°.
6. From Fulton to San Pedro, near the 32d parallel.

The *third and fourth* routes were found to cost so much, as to be really impracticable. The summit levels were over ten thousand feet, and enormous tunnels had to be cut on

mountain tops. The question is, therefore, really confined to the other four; or, more properly to *three*—the extreme Northern, the Middle, and the Southern. The fifth route above is only a modification of the sixth, and the last may, therefore, be put for both.

The examination and comparison, therefore, may be confined to the *first*, the *second*, and the *sixth* routes. The *elements* of comparison are: the *equated length* (at equal cost)—the amount of *arable land* on the route—the amount of *sterile land*—the amount of *medium land*—the *summit level*—the *climate* marked by latitude—the points of *Atlantic connection*; and, finally, the *ultimate cost*.

We shall endeavor to make all these points plain, by reference to the Government Surveys, Topographical Maps, and the Railway routes on the East.

### 2. THE ACTUAL AND EQUATED LENGTHS.

	Straight line.	Ac. distance.	Eq. level line.
1st Route on 48th parallel.....	1,455 miles.	1,864 miles.	2,207 miles.
2d Route on 42d parallel.....	1,410 “	2,032 “	2,583 “
6th Route on 32d parallel.....	1,400 “	1,618 “	2,239 “

To understand this better, however, we must add on to these the distance East to New York, as a central point on the Atlantic, and the distance West to Seattle, the port of Vancouver, and to San Francisco, the central point of California.

	Actual distance.	Equated.
1st Route, 48th parallel.....	2,806 miles.	3,577 miles.
2d Route, 42d parallel.....	3,282 “	3,825 “
3d Route, 32d parallel.....	3,593 “	4,206 “

The route of the 32d parallel will, of course, be much nearer New Orleans and even Charleston; but, it would be unfair to count the distance to these places only, for New York has, unquestionably, become the commercial centre of the United States. In point of fact, therefore, the extreme Northern is the shortest, and the extreme Southern route the longest. But, as length is only one element, in the construction, let us proceed to the others.

### 3. MILES THROUGH ARABLE LAND.

	Miles Through Arable Land.	Miles Through generally sterile land.
Route of the 48°.....	535 miles.	1,496 miles.
Route of the 42°.....	632 “	1,400 “
Route of the 32°.....	784 “	1,280 “

The differences here are not so great, as to be decisive. It appears that *full two-thirds* of the distance on either route must be through a country generally, and sometimes exclusively sterile. This is, in point of fact, the worst feature in a road to connect the Mississippi and the Pacific.

There are, it is true, small areas of fertile land; but, at best but a trifle compared with the whole. The proportions are as follows. Assuming *ten* miles on each side, (in a long line, altogether too small), as the section immediately dependent on the road, we have these results:



Square Miles on the whole road, 2,000	
by 20.....	40,000 sq. miles.
ROUTE OF 48°, Miles of Arable Country	
535 by 20.....	10,700 "
Add small areas.....	1,000 "
Arable land.....	11,700 "
ROUTE OF THE 42°, Miles of Arable country.....	12,640 "
Add small areas.....	1,000 "
Arable land.....	13,600 "
ROUTE OF THE 32°, Miles of Arable country.....	16,680 "
Add small areas.....	2,300 "
Arable land.....	17,980 "

Reduced to their ultimate proportions, the following are the *ratios* of arable land :

Northern Route.....	30 per cent.
Middle Route.....	35 " "
Southern Route.....	45 " "

Supposing the whole amount of arable land be reduced to acres, and the value (the road being made certain, in which the opportunity for towns, cities, and farmers on the route, would be increased an hundred fold), to be \$4 00 per acre, we have the value of arable lands on the route, thus :

Northern Route.....	\$29,848,000 00
Middle Route.....	34,918,400 00
Southern Route.....	45,628,800 00

Neither of these sums will construct the road. But, we are well aware, that many persons will make an estimate far beyond ours, by adding immensely to the valuation of sites for cities, towns, mines, factories, etc.; and, perhaps, this will be right, by making *time* an element of value; yet, it cannot be concealed, that wild lands, remote from cities, are not valuable, till roads are constructed to them. On the Southern route, however, we shall see the value of lands will approximate much more nearly the whole cost of the road. The State of Texas has granted twenty sections per mile to the Pacific Railroad Company. This amounts to 12,800 acres per mile, and land in Texas, *on a railroad*, would be immediately saleable at \$5 00 per acre. This would be \$64,000 per mile, more than enough to construct the road within the territory—about 700 miles.

#### 4. COMPARATIVE COST.

The estimates of the Engineers, are as follows :—

Route of the 48°.....	\$124,151,000
Route of the 42°.....	116,095,000
Route of the 32°.....	84,070,000

The Southern route is by far the cheapest, and if the work is to be constructed by individual means, this will prove a decisive fact.

#### 5. SUMMIT LEVELS.

The following are the summit levels, or what are called the "Passes" on the several routes, and when we consider that these passes are far below the general height of the mountain ridges, we may have some idea of the great magnitude of the difficulties to be encountered on a mountain railway.

Northern Route.....	6,044 feet.
Middle Route.....	8,733 "
Southern Route.....	5,717 "

On the Northern route there must be a tunnel.

#### 6. CLIMATE.

It is not to be denied, that in regard to climate, the Southern route has immensely the advantage. The recent experience of the effect of snows on the Illinois railroads shows clearly, that if snows on the great plains will not entirely obstruct the running of cars, they will undoubtedly greatly diminish the profits of the road. On roads, liable to encounter great snow drifts, there must be depot stations placed near together, and provided with all the means of comfort; or it will endanger the lives of all passengers in the winter season. On the parallel of 32°, there will be no difficulties of this sort.

We have now compared carefully the *data* furnished by the Government Surveys of a Railway to the Pacific. We confess, that in any aspect, such a work is one of immense magnitude, and encountering great difficulties. In this age, and especially in this country, men are not apt to be detained by difficulties, where the end in view is one offering a sufficient reward. In this case, there is a great and magnificent reward in view. The enemies of the Pacific Railway are entirely mistaken in the most important elements of the enterprise; its results. They think the business will not be great. That is a *total mistake*. No commercial project in the world ever did, or can, offer such a prospect of business and profits. Why, look at the business of the Panama route already—a route nearly three times the distance of a railway on the continent. Look at the Pacific coast—soon to be filled with tens of millions of people. There is no difficulty about business or profits. The difficulty lies in making the road. The government has neglected its duty, and made a great blunder in not seizing this great enterprise, and completing it as its own. The Northern and Middle States, especially those of the Ohio Valley, have made a great mistake in not adopting and insisting upon the middle route when they could. Congress seems now to have thrown the matter back upon the enterprise of the people. In this aspect of the case, there is no doubt that the southern route offers the most temptation to a private company. Texas offers a premium of \$60,000 per mile, for 700 miles! If this offer be not accepted, it will only prove that monied men are as blind as the government. If, on the completion of that 700 miles, California does not offer an equal amount to continue the work over her mountains, there it can stop, and being made almost without cost to the stockholders, and opening up a rich country, must be profitable stock, only as a work from the Mississippi to the Rio Grande. *Nationally*, we consider the Middle Route, extending from the Vallies of the Ohio and Missouri, as the one which the Government *ought* undoubtedly to construct. But, if the Government will not do what is so

palpably its interest and its duty; and if the people who live in the great Central States are so indifferent and careless to their own interests, then there is no reason why a private company should not seize upon the offers of Texas, and have the glory of constructing a Grand Pacific Railway.

#### RAILROAD REPORTS AND THEIR LEGAL ENFORCEMENT.

Concluded from last week.

The present state of perfection in the machine, renders it probable that new substitutions of its important and expensive parts will annually become more rare; but yet it may be safely assumed that some expenses of this character will continue to accrue, and must be provided for in estimating the cost of our railroads or their value as an investment.

The experience of some of the older railroads for a considerable period, proves that the substitutions of the character mentioned, have cost a sum equal to from one to two per cent. per annum on the original cost of the road.

The interests which call for the protection of the government are :

*First.* That of the public at large, in the safe construction and management of railroads, and in their adaptation to convenient and economical use for travel and trade; and,

*Second.* That of the stock and bond holders, in the faithful application of their investments and the management of their property.

Much injury has been caused to both of these interests by the defective construction and premature opening of many of our railroads. The most serious accidents, involving the destruction of both life and property, have been caused by opening them for public travel before they have been fully completed, or when they have been imperfectly built. The public have no means of ascertaining the condition of these works, and are compelled to jeopard their lives and property upon them, without any assurance that their safety has been provided for by secure structures and vehicles, sufficient rules and precautions, and judicious and experienced managers and employees.

Before any road is used by the public, it should be subjected, in all its parts, to the careful examination of some responsible public officer, who should also determine whether proper provisions and regulations had been established to prevent accidents.

Under the second head, the same powers of supervision and examination by public officers should be given as those which are now extended over other corporations, and authority to compel the publication of full and authentic statements of their condition and operations.

The present depreciation in the railway



interest may be chiefly attributed to the diminished rate of fares and the increased expenditure for operating and enlarging the works.

The charges for transportation have been reduced to the present low rates, from a mistaken opinion that it was necessary to show to the public large receipts, to accomplish which it was necessary to enter into a competition with rival roads and water lines, which was carried to an injurious extent, in consequence of the fallacious statements of the expenses of transportation which the published reports exhibited.

These reports, by exaggerating the net profits of the business, have prevented the managers, even when they discovered the error, from increasing their charges to compensating rates, by the fear of public opinion and legislative interference.

Upon any given line of railroad, there is a certain amount of travel and freight, which would, in any event, be transported by it in preference to the water lines.

In almost every case, the capacity of a well equipped, single track road, provided with frequent passing places, and a telegraph for its exclusive use, would be sufficient for the performance of this legitimate business, which, if economically conducted, would yield the maximum profit which could be earned, and would, in most cases, be ample to assure either an immediate or an early profitable return for the investment.

To divert from other roads, any of this class of business, requires a reduction in the charges, which must necessarily be extended further than merely to that portion which is diverted; and as the rate of cost of doing the business cannot be materially diminished, this reduction in the charges is taken directly from the net profits, and it therefore requires a large increase of business to yield the same amount of profit as was afforded before any reduction in the charges was made. This reduction is sometimes continued until no profit whatever is realized.

The rival road from which the business is thus diverted will soon reduce its charges, for the purpose of reclaiming its business, and feelings of rivalry will thus be engendered, which will continue the competition until the rates become so evidently unremunerative that conventions must be held to terminate the controversy and establish equitable prices and conditions. Each company will then only be restored to its original position, with the disadvantage of having in the meantime persuaded the public that the lowest prices were sufficiently remunerative.

The alleged necessity of showing large receipts will exist; and the attempt to maintain the business diverted from rival roads being abandoned, a competition with the water lines is commenced, for the transpor-

tation of the heavy and cheap articles of freight, which can only be maintained by rates nearly or quite as low as those charged upon the lakes, rivers and canals, and too low, as will presently be shown, to give a fair remuneration to the railroad.

If the cost of railroad transportation could be determined, with tolerable accuracy, by some disinterested and official authority, it would be a great step taken toward the correction of some of the most serious evils to which allusion has been made.

The sophistry of the argument, that it is ever the true interest of the stockholders to increase receipts by carrying any portion of the business under cost, is too palpable to merit discussion. The public will always look with distrust upon the management which maintains so fallacious a doctrine.

The returns of the railroad corporations show continued large additions every year to the construction account of even our oldest and best built roads. The reported increase of cost during the past year, is chiefly in consequence of an extension of the double track, a larger equipment, and station facilities for the accommodation of the increased freight traffic.

The increase of the cost of the road on the New York and Erie, has been twenty per cent. during the last two years, and on the Central it has been more than twenty-five per cent. during the same period.

The reported earnings and net earnings of these roads have increased by a much larger per centage than the cost of the roads as above stated, while the reported expenses of operating have increased by about the same per centage as the earnings.

The freight earnings have increased more than the passenger earnings; but the average receipts per ton per mile have been less this year than the preceding one, especially on the Central road, although the rates of charges have been increased on both roads.

The average receipts per ton per mile for the last year were two and one-half cents on the Erie, and a little more than three cents on the Central, while the average the preceding year on the latter was nearly three and one-half cents. The freight tariff has been nearly alike on each of these roads for the last two years; it is, therefore, evident that the business of the Erie road embraces a larger portion than that of the Central of those articles which pay the least rates, and that the latter road has been performing a much larger proportion of its business at low rates this year than formerly.

On comparing the reported receipts, expenses, and business of our three principal freighting roads, it will be seen that the passenger business on the Erie is reported as giving a net profit of 47 per cent., with an average charge of one and seven-tenths cents

per passenger mile; on the Central a net profit of 44 per cent, and a charge of one and nine-tenths cents, and on the Northern railroad a net profit of two per cent., with an average charge of two and seven-eighths cents per passenger mile; and that the freight business on the first is reported as giving a net profit of 51 per cent., with an average charge of two and six-tenths cents per ton per mile; on the second a net profit of 48 per cent., with an average charge of three and seven-tenths cents, and on the third a net profit of 34 per cent., with an average charge of two and one-fourth cents per ton per mile.

The character of the business, the grades, and other circumstances of these several roads do not furnish any sufficient reasons for these discrepancies.

The actual cost of transportation upon railroads will probably never be accurately determined from their reports, until they have been run a few years with the construction account closed, and no money borrowed.

The expenses of operating the road, as stated in the reports, are about one and a quarter cents per ton per mile on the Erie, and one and six-tenths cents on the Central; but, as before stated, these reports do not show accurately the cost of this service. More reliable testimony on this subject is afforded by the recent action of the railroad conventions. At the one held at New York, embracing the officers of the four great lines between the Atlantic and the West, a joint report was submitted by the superintendents of the several roads, in which they state that "experience has proved that the *lowest rates* at which ordinary freight\* can be carried to pay interest and expenses, will average about two cents per ton per mile, for heavy agricultural products, three cents for groceries and four cents for dry goods." At a subsequent convention of the railroad companies of Ohio and Indiana, similar rates were adopted.

The above charges applied to the business of our two great lines would yield an average of a little less than three cents per ton per mile, and would serve to show that some of the business done on each of these roads, does not even pay "interest and expenses."

Sufficient information has been elicited from the railroads of this and other states from the actions of the conventions, and from other sources of information, to warrant the belief that a considerable portion of the freighting business now done by our railroads, yields no profit at the present rates, when due allowance is made for the increase of capital which it requires for the increased wear and depreciation of the works, and for the occupation of the track to the injury of other business.

\* Carried in freight trains at a speed of 10 or 12 miles per hour, and in large quantities.



The reports of the present year show an increased expense in operating the roads over that of the preceding year. An examination of the reports of a number of railroads in New-England and elsewhere, shows, for the last five years, an annual increase in their cost of from 2 to 5 per cent. per annum; an increase in their receipts of from 12 to 20 per cent., and an increase in their expenses of from 20 to 40 per cent. per annum.

The increased expense of railroad transportation, is owing, in part, to the advancing rates of labor and materials, the increased rate of speed, the high rates of interest paid, to carry the large floating debts which modern railway financiers have introduced as a part of their system, and, finally, to the extravagant management which has grown up among the general characteristics of the times, increased by the apparently highly prosperous condition of the railroads, the facility for borrowing money, the necessity of employing inexperienced and incompetent officers and workmen, in consequence of the great and sudden demand for this species of labor, and in some cases by the abuse of power on the part of railroad managers in using their position and the works under their charge to their personal advantage, an example certain to be followed by the subordinates.

During the plethora of money, lines of railroads were projected by adventurers to benefit local interests; money was *promised* by speculators on deficient securities, and its expenditure was entrusted to agents with loose notions of fiduciary trusts. The construction was conducted by engineers of little experience or judgment, and the management was seized upon by adventurers and speculators, who were determined that every item of expenditure should be arranged, so as to inure to their personal profit.

The ultimate fate of railroads so constructed or managed is no longer conjectural, and while their stock and securities have been swallowed up in the disasters of the times, those which have been judiciously located, and are free from the most serious of the above recited charges, will soon regain their place in the public confidence.

A radical change for the better has already taken place in the management of most of our railroads; and if the reforms which have now been commenced are thoroughly carried out, the main lines will take precedence as an investment over any other securities of aggregated capital.

Labor and materials have fallen in price, the speed of trains have been reduced, and the want of money has compelled a more economical use of it, while the suspension of dividends and temporary embarrassment have led stockholders to inquire more critically into the management of their interests.

The misfortunes of the present time are, therefore, quite likely to result in great permanent advantages.

At least three-fourths of the money which has been expended upon railroads in this country has been furnished by our own citizens, and the remainder (chiefly for bonds) has been obtained from foreign investments.

The prosperous condition of all interests for the last ten years has yielded large surplus profits, which have, to a considerable extent, been invested in this class of securities, because they afforded a prospect for larger returns than any other investments.

The success of many of the roads now built, and the extension of others, which is necessary to meet the rapid development of the interior, will depend upon the establishment of a correct basis for security of the stock and bondholders.

The recommendations which are herein made will, it is believed, meet the present exigencies of the case, so far as the stockholders are concerned, until the experience of State supervision suggest such further guards and checks as may then be found necessary.

The question of the security of railroad bonds having been raised in consequence of frauds which have been committed, and in some cases by the excessive issue of bonds in proportion to the stock, it has become necessary to give further assurances to foreign capitalists of the security of their investment before they can be persuaded to make further advances.

This must be done by legislation, and the question should be promptly and frankly met by the railroad interest in this country, by asking for such legislation as will most effectually accomplish this object without inflicting burthens too onerous on the stockholders.

The establishment by law, of a sinking fund for the repayment of the funded debt, placed beyond the control of the corporation, will at once give such security to the bonds of our railroads as to render them still more favorite sources of foreign investment.

It should also be understood, that no bonds should be issued until at least one half of the probable cost of the work has been actually paid in cash and expended.

Such guaranties would relieve present embarrassment, and secure the prosecution of all of the roads that the immediate necessities of the country require.

I would respectfully suggest that a railroad commission should be established by law, consisting of the comptroller, the state engineer and surveyor, and a person to be elected by a vote of the stock and bondholders of the different railroad corporations in this state.

That the accounts of the corporations should be open to the inspection of this commission, and that they should be required to examine into their financial condition annu-

ally, and at any other time when complaints of fraud, properly authenticated, are laid before them.

That no road should be opened for public travel, until a certificate has been obtained from the commission that it has been examined by them, and has been properly constructed and equipped, and that the necessary regulations have been established to prevent injury to life or property.

That the commission should have the authority to inquire into the causes of all accidents which have injured life or limb, and that they should submit annual reports to the legislature of all of their proceedings under this authority, and also full and ample reports of the financial condition of the several corporations, and of the business operations and receipts and expenses, as now provided by law, with such additional information as they deem necessary to lay before the legislature or the stockholders.

#### AMERICAN RAILROAD JOURNAL.

While we have the Record under notice, it will excuse us for asking it when those eight roads between the Ohio State Line and the Scioto River, viz: the Little Miami, Hillsboro', Cincinnati, Wilmington and Zanesville, Cincinnati, Hamilton and Dayton, Hamilton and Eaton, Greenville and Miami, Ohio and Mississippi, and Dayton and Mad River roads, are to commence their ten per cent. dividends.—*American R. R. Journal*.

The *Journal*, like a distinguished Ecclesiastic in its neighborhood, is out of temper. But that is an evil incident to human nature,—which should not (except in extreme cases) be complained of.

It is true that (in No. 5, Vol. 2,) we instanced seven of these roads (the *Dayton and Hamilton* being only a part of the Dayton and Mad River,) as likely to pay ten per cent. dividends. Now, how stands the account? The Hillsboro' (or rather the Marietta line) is not completed, and will not be for a year to come;—the *Cincinnati and Wilmington* is not completed;—and the *Ohio and Mississippi* are not completed;—nor will either of these three most important lines be fully equipped, for, at least, two years to come. Now, we presume the *Journal* does not require them to pay before they are made. Of the three remaining roads,—the *Little Miami* has paid ten per cent., and made more for a series of years. The *Hamilton and Dayton* professes to have made it, and has declared a dividend accordingly. The *Hamilton and Eaton* road reports an increase of forty per cent. in its earnings, and is in a fair way to make the ten per cent.

The *Greenville and Miami* is the only one in the list for which we can fairly be called in question; and time will show, when the Fort Wayne connection is made, whether that will do as well.



And now we repeat the original proposition,—that we expect every leading road out of Cincinnati, in the Miami country, to pay ten per cent dividends, when—in a fair sense—they are fully completed, and equipped. And in this we include two other, viz: the Cincinnati and Indianapolis line, whose receipts are increasing with great rapidity; and the Tunnel line, when completed, however long that may be.

Furthermore, we say, that the receipts on railways in Ohio, in the past year are far less than what they will be in a year of average crops. We are in possession of the detailed traffic of all the Railways in Ohio, and it tells a story of cause and effect, which nothing else can tell. If, then, the receipt of Western railways are increasing now, what will they do with full harvests? The stockholders of Western railways have been shaved by Bankers, and alarmed by croakers, till their property has been depreciated far beyond what either fact or reason justifies. It will be their own faults, if they are any longer deluded in this way. Four-fifths of the Western railways (if not grossly mismanaged) will yield large dividends, and the stock be above par.

If the *American Rail Road Journal* be (as it ought to be) the sincere friend of railways, it will attend to the interests of stockholders more, and to that of Wall-street Brokers less. A large part of the cost of railways has been created by the enormous discounts,—commissions,—exchange,—and other charges, and perquisites,—made by the “financiers,”—of Wall-street. We fancy that some of these gentlemen would not like to see in print the account current with their railway clients,—which, nevertheless, might be very edifying and instructive to posterity. It is perfectly true, that the officers and Directors of railway companies are *particeps criminis* in that wrong; but, we protest against the general attack which the *Journal* too often makes on the interests and prospects of a railway, because its Directors have been sometimes imprudent,—or the right Broker has not been employed. A railway paper should be fair towards all interests, and classes of men.

#### ILLINOIS CENTRAL RAILROAD.

This road (700 miles) was built out of land given it by the government; on which it borrowed the little sum of *seventeen millions of dollars*. It has recently published an account of its sales of land; but no account of the workings of the road. It appears that the lands sold in a year amounted to *not half the interest of the debt*.

Query: How much land will be left to pay the debt? And what will the stock be worth, when the interest has to be paid out of the proceeds of the road?

## Railroads.

### PITTSBURG AND CONNELLSVILLE R. R.

At the date of our last notice of this road, the work had been let, and was progressing between West Newton and Connellsville. We learn from the *Pittsburg Gazette* of April 28, that the first division of the Pittsburg and Connellsville Railroad between Turtle Creek and West Newton, were made on Thursday last, April 26.

#### Section 11. Reserved for the present.

- “ 12. Alfred and Moses Corey.
- “ 13. A. and James B. Corey.
- “ 14. Patrick Fenlon.
- “ 15. Bernard and Michael Rafferty.
- “ 16. Lonergan & Co.
- “ 17. Patrick F. Howley.
- “ 18. McCabe & Toner.
- “ 19. “ “
- “ 20. William P. Sterritt.
- “ 21. Travers, Nightwine & Co.
- “ 22. Job G. Patterson, Espy & Co.
- “ 23. John McFadden & Son.
- “ 24. Patrick Fenlon.
- “ 25. McGrann & Fitzpatrick.
- “ 26. John McFadden & Son.
- “ 27. Patrick Maher.
- “ 28. A. A. Johnston, McFarland & Painter.
- “ 29. A. A. Johnston, McFarland & Painter.
- “ 30. McGrann and Fitzpatrick.
- “ 31. Christian Snyder.
- “ 32. “ “

We are informed that the Chief Engineer's estimate for the above allotments was \$144,000, and they were taken by contractors for \$136,000.

#### RAILROADS CONSOLIDATED.

The Illinois and Wisconsin, and the Rock River Valley Railroads have been consolidated, and the name changed to “Chicago, St. Anthony and Fond du Lac Railroad.” The line from Janesville to St. Anthony will be a continuation of the main road, while that from Janesville to Fond du Lac will be but a branch. Originally this latter was to be a part of the main line, but the importance of a direct line to Minnesota has induced those who control the road to change it in that direction.

Mr. Ogden, of this city, is President of the new Company, which owns and directs the road, and we understand that it is intended to push forward the work to Janesville as soon as navigation opens to permit the arrival of iron.

We also hear it intimated that the track of the road, which is now six feet wide, will be reduced to the usual gauges of other railroads. This is not because the wide gauge is unsatisfactory, but for convenience of connection with other roads.—*Chic. Trib.*

#### THE MAHONING ROAD.

This work, in which we are so directly interested, is to be prosecuted “to an early completion,” if the paper's don't fib. The *Cleveland Plain Dealer* says: “Messrs. Perkins and Todd have just returned from Philadelphia, where they have been spending the winter, and where they have succeeded in negotiating the sale of bonds of the Cleveland and Mahoning Road sufficient to buy the iron,

stock it and put in motion from this city to Youngstown. The work is immediately to be commenced along the whole line, the iron is to go down, the track cleared, and the locomotive put in motion by the 1st of October.” When the locomotive is ready to run on that road we will make the proper announcement. We have heard so much of the “early completion” of certain other roads that we have not the most implicit reliance on these railroad contractors' prophecies.—*Com. Register.*

### EATON AND HAMILTON RAILROAD.

The Earnings of the Eaton and Hamilton Railroad for the month of March, 1855:

#### MARCH, 1855.

Passengers and Express.....	\$6,388 84
Freight.....	9,480 37
Mails.....	175 59
Total.....	\$16,044 80

#### MARCH, 1854.

Passengers and Express.....	\$5,396 05
Freight.....	5,324 97
Mails.....	175 59
Total.....	\$10,896 61

Increase.....	\$5,148 19
Per cent.....	47½
Earnings per cost, per mile, per month on 45 miles of Road.....	1 4-10 per cent.

Earnings of the Eaton and Hamilton Railroad for the month of April, 1855, were as follows:

#### APRIL, 1855.

Passengers and Express.....	\$5,791 04
Freight.....	5,501 42
Mail.....	175 59
Total.....	\$11,468 05

#### APRIL, 1854.

Passengers and Express.....	\$4,685 55
Freight.....	3,247 38
Mails.....	175 59
Total.....	\$8,108 52

Increase.....	\$3,259 53
Per cent.....	41 4-10
Earnings per cost, per mile, per month on 45 miles of Road.....	1 per cent.

For the four months of 1855, this road has earned on the cost per mile..... 4 8-10 per cent.  
Equalling per annum..... 14 4-10 “ “

### GALENA AND CHICAGO UNION R. R.

The Earnings of the Galena and Chicago Union Railroad Company for the month of March, 1855, were:

Freight.....	\$68,336 04
Passengers.....	55,816 56
Mail, etc.....	3,778 54
Total.....	\$127,931 34

### INDIANAPOLIS AND CINCINNATI R. R.

The Earnings of the Indianapolis and Cincinnati Railroad for April, 1855, are:

Passengers.....	\$14,798 38
Freight.....	15,277 02
Express and Mail.....	1,127 08

For April, 1854.....	\$31,193 48
	19,437 90

Increase.....\$11,755 58

#### A SAGACIOUS THOUGHT.

The Breckinridge Coal Company, who own some very good coal lands near Cloverport, Ky., advertise that they have the best coal in the country; that a bushel is worth three times one of any other kind for steamboats; that they have modestly divided their property into 40,000 shares of \$100 each, (four millions!) and then sagaciously add, that the Breckinridge coal is most excellent for making gas!



## Miscellaneous and Mechanical.

### CAST STEEL AND SAW WORKS AT HAMILTON, OHIO.

The manufacture of cast steel from our own domestic iron, is a branch of industry and art that has received some little attention from American capitalists and mechanics. The principal pioneer establishment was commenced at Pittsburgh in 1850, carried on for about three years, under difficulties and discouragements, and finally closed in 1854. There are smaller establishments in New York and New Jersey, but thus far they have not succeeded in producing an article from native metal, which could compete with imported wares. The principal difficulties have been inexperience of workmen, and insufficient tariff protection during the period necessary to give the requisite skill. So far as we know, the Works at Hamilton are the first successful steel manufactory in the United States. English manufacturers use exclusively Swedish iron. Some varieties of our American iron closely resemble this, and are even considered better than any imported. Messrs. Lee & Leavitt use the Missouri Iron, the Lake Superior Iron, and the Champlain Iron, but prefer the first, as producing the best quality of steel. The iron is first subjected to the process of hammering under the tilt hammer, according to the old method; and for steel manufacturing this process has many advantages. The iron, as it leaves the furnace, contains a large amount of carbon, larger than is necessary to produce steel, and held in union with the metal in a different chemical manner. This carbon must be extracted, and can only be done by the tilting process. Any other method leaves a portion of the metal wrongly carbonized, and hence produces an inferior steel. The iron is tilted into bars about  $2\frac{1}{2}$  inches wide and one-half inch thick. It is then ready for the carbonizing furnace. This is a large round furnace, containing various boxes made of fire-brick, in which the iron is imbedded in pulverized charcoal, and heated to a certain temperature and retained at that heat for nine days. During this time it is slowly impregnated with carbon, and being protected from the action of air or other external influence, the materials combine in a pure state. The iron or rather steel is next withdrawn from the carbonizing furnace, and is the blistered steel of commerce. This blistered steel is then broken up, and sorted into highly carbonized and low carbonized steel, each variety being superior for different purposes. The next process consists of melting and forming the ingot. The melting is performed in open furnaces, situated on a level with the floor, the ash pit, etc., being below in the cellar. The broken pieces of steel are put into crucibles, and carefully luted over so as to exclude

air, and at the same time detain the pure carbon in combination with the metal, and prevent the impure carbon of the coke or other combustible from combining with it. This last is the most important precaution, as the steel when exposed to the direct action of fire becomes wrongly carbonized and deteriorates to cast iron. The melting furnaces are arranged in a row along the floor, and in a corresponding row stands the moulds in which the ingots are cast. It requires two sets of men to manage this department; one to withdraw the heated crucibles from the fire, and the other to pour the metal into the moulds. The ingots thus formed are afterwards drawn into shape, either under the tilt hammer or under the roll. Bar steel is tilted; sheet steel is rolled. The steel is then in marketable shape.

A large proportion of the ingots thus manufactured by Messrs. Lee & Leavitt, is consumed in their own factory in making cast steel saws, and for this purpose they make the ingots of suitable size and shape for each different style of saw, and in this manner avoid a waste of material. The rolled sheets are next taken to the saw department and trimmed to shape, toothed, filed, and prepared for the tempering furnace. The tempering is done in a manner peculiar to themselves, which imparts to the steel a certain degree of hardness and elasticity, as well as the maximum amount of tenacity. The advantage of which is readily seen in the fact that the teeth of their saws never split, as is very commonly the case with saws manufactured in the ordinary process. After tempering, they are taken to the smithing department. This occupies a room about 100 feet in length and 15 feet in width, having an anvil in front of each window. Here careful and experienced workmen are engaged in straightening and truing the saws, an operation which requires years of experience and great skill.

From the smithing department we next go to the grinding and polishing department. This occupies a room 70 feet long by 40 feet wide, and contains five huge grindstones, five and a half feet in diameter, and a number of polishing wheels and flanges for circular saws. Here all marks of the fire and hammer are obliterated, and the saws finely polished, are sent back to the smithing department to undergo the process of blocking and finishing. This is similar to smithing, but done with a polished hammer and on a polished anvil, to remedy any slight bend they may have received during the grinding and polishing. The saws are now sent to the stiffening furnace, where they are heated to a sufficient degree to restore the elasticity lost under the hammer of the smiths, but not enough to warp them out of shape. They are next immersed in a solution of muriatic or other acid, to remove the color imparted by the heat

in the stiffening process, and then washed in lime-water to cleanse them and neutralize the acid. The saws are then dried and oiled, and done up ready for the warehouse.

These gentlemen have invented a process of casting cast steel tools, mandrills, frog points, etc., which materially reduces the cost of these articles. A broken section of an ordinary cast steel ingot, presents the appearance of a coarse radial crystalization from the exterior to the interior, to the distance of about half an inch, the interior being finely granulated crystals, which form a more compact mass than the coarse radial crystals of the exterior. Hence, in the ordinary process of manufacture, forging is necessary to render the mass homogenous, and assimilate the particles of the coarse crystals. But in the process of casting here pursued, the difficulty of the external radial crystalization is avoided and the whole mass is uniformly and finely granulated, and all the difficulty and expense formerly necessary to render the crystalization homogenous, is at once dispensed with. Their cast steel tools and frog points are rapidly gaining in favor where ever tried.

The manufacturing works of Messrs. Lee & Leavitt are located at Hamilton, Ohio, 25 miles from Cincinnati, within a few rods of the depot of the Hamilton and Dayton Railroad. They comprise a large three story building, 130 feet in length and 40 feet in width; the first story is devoted to the grinding department, the second to the saw works, and the third to the manufacture of their portable saw mills. These latter are so well adapted to the work they are designed to perform, that the demand for them already overtaxes the ability of the makers to manufacture. Immediately in the rear of these works are the steel works, containing the various furnaces for carbonizing and casting the metal etc., occupying a separate building 60 feet by 70. Adjacent to this is another, 40 feet square, used as a store-house for coke and stock of various kinds. The works are driven by water from the Miami river. A dam has been thrown across the stream four miles above, and the water brought down in a canal or hydraulic, thus furnishing the requisite fall. During the year 1854, Messrs. Lee & Leavitt did a business of \$75,000, and if the present year continues as the first four months have been, their business will amount to \$125,000. Their factory was begun in 1853. At this rate of increase, in 1860, if their facilities increase in proportion to the demand, their aggregate business will amount to over one million of dollars.

### GEOLOGY OF WEST TENNESSEE.

Prof. Safford has just completed quite a prolonged tour through this section of the State, prosecuting a geological survey of it. This survey, and others contemplated, will do much to bring before the public the vastness of our resources, Mr. Safford having, in the



progress of his investigations, met with many mineral products of value. Among these are beautiful beds of Marble in Henry, Benton, and Decatur counties. This marble is closely like that from Rogersville, out of which the elegant columns of the Senate Chamber at Nashville were cut. It is of good quality, and well worthy of attention. Valuable beds of Iron Ore occur in both Benton and Decatur. In fact, the great iron region, just beyond the Tennessee river in the Middle Division of the State, crosses the river and covers a good part of the two counties mentioned. In Hardin, on both sides of the river, there is a beautiful bed of hydraulic limestone. It is really surprising that this limestone has not been noticed and more extensively worked.

In Henderson and Hardin, as well as McNairy, there are vast amounts of a stratified deposit, containing shells, etc., called "green sand," which is a most valuable dressing for land, and must some day be an article of traffic. The Mobile and Ohio Railroad and no doubt the Memphis and Charleston road cut directly through it.

Among the many interesting geological features of West Tennessee, none are more so than the Mississippi "Bluffs." They have lately attracted additional attention on account of the supposed discovery of stone coal in some of them.

In Tennessee four of these "bluffs" are well known; the one at this point to which Memphis owes its appellation of "The Bluff City;" the next at "Old River," in the lower part of Tipton—now, however, nearly deserted by the Mississippi; the next at Randolph; and the remaining one at Fulton. At each of these points, the "bluffs" overlook the river for several miles, and, being from 100 to 200 feet high, are very conspicuous. At all the other points nothing can be seen from the river but the low banks of the great alluvial bottoms, the highest of them not much above high water mark. Hence the "Bluffs" have been for many years familiar land-marks to boatmen, and, commencing with the uppermost one, were formerly called by them the First, Second, Third, and Fourth Chickasaw Bluffs. If, however, we confine our attention to what can be seen from the river, we will form but a poor idea of their character. They are, in fact, but parts of a great uniform bluff which runs through the State from Mississippi into Kentucky. Prof. Safford has traced this remarkable cliff from Hickman to Memphis—it runs south, preserving nearly a straight course. It terminates abruptly at the Mississippi bottoms, and is the Western limit of the high lands of the district. On the west end it is bold and precipitous, retaining all along its bluff-like character. The whole range was once unbroken—now it is cut, in our State, by about half a dozen small rivers which empty into the Mississippi. These cuts, however, are of but little importance in considering the general character of the great bluff. It is still fresh. Every part of it has in time been washed by the river. It marks strikingly the eastern limit of those changes that the river has experienced in its lateral movements from one side of its great alluvial plain to the other. The geological structure of the bluff is about the same at all points. It is made up of horizontal strata of earth, sand, gravel, clay, and lignite, which spread out eastward over the counties along the Mississippi. Beneath the soil and substrata we have:

1st. A great stratum of light yellow ashen earth or loam. To this bed is due the excel-

lent soil we find in Obion, Dyer, Lauderdale, Tipton and Shelby. In the Northern part of the State it is more conspicuous than it is southward. This rests upon—

2d. A heavy bed of gravel accompanied often by strata of sand and clay. At some points the gravel and sand are cemented so as to form a hard conglomerated or sand stone. Below this we have again—

3d. Layers of sand, interstratified with beds of brown coal or lignite and strata of clay.

The bluff at Memphis exposes the first and second divisions. The third which contains the lignite is below the bed of the river. In Lauderdale and Tipton the bluff is much higher and exposes near its base fine beds of lignite. This substance is far from being stone-coal, for which it has been mistaken. It is an imperfect coal, having too much the nature of wood to make it valuable. A fine bed of it is exposed at Raleigh, and Prof. S. is of the opinion it could be found at Memphis at a level below the bed of the river.

The formations of the bluff are of recent geological age. They were once continuous over a much wider area, and appear to have been deposited at a time when the relative level of the river and the land was very different from what it is now,—the river spreading out east and west lake-like and covering a vast breadth of country. Since that time the land has been elevated or the river depressed, and in consequence the water has excavated its present low valley out of those formations—remnants of which we now see in the bluffs.—*Memphis Eagle*.

#### PATENT LAW.

The issue of the *Record* of April 26, contained a notice and extract of the well arranged, and—for the most part—judicious compilation of laws and regulations relating to patent matters by J. G. Moore, Esq.

The work is a valuable one, chiefly as presenting in a well digested and compendious form, matter heretofore somewhat diffusely scattered through various government publications; there are, however, some serious errors which should be corrected.

Thus, in page 26, in explaining the nature of a caveat, Mr. Moore says: "This anticipated action secures to him the right of original discovery, although his design or invention may only have been developed as a dream of the mind."

Now that other than the above is the case, is very *patent* to those moderately versed in such matters, and well illustrates the fact that a compiler treads on dangerous ground, in departing from the record. It is very well known that a caveat *establishes no right*, it is, as its name imports, a purely precautionary step, and simply makes it incumbent on the commissioner of Patents to notify the caveator of any interfering application "filed within one year after the time of filing the caveat," and to stay further action until "like proceedings being had, as are provided in the case of interfering applications," the question of priority comes to be decided in regular course. See Act July 4, 1836, Sections 8 and 12.

On the next page it is stated in a note on

English Patent Laws: "The Lord Chancellor has extended to seven months the time allowed, (formerly six months,) to patentees to file their specifications." This *was* nearly the case under the old law by which the six months usually allowed could be extended to seven, at the discretion of the Chancellor; but the whole system has ever since October, 1852, been entirely different. By the regulations at that time enforced under the act of July, 1852, it was made obligatory on the applicant to *immediately* file either a provisional or a complete specification. Those interested—or others whose turn of mind may fit them for wading, with pleasure, through the dreary legal stubble of an English act of Parliament,—will find the law in reference to the filing of the specification stated in sections 6, 8 and 9, act July aforesaid.

A little further along, it is stated in relation to British Patent Fees, "Patent fees amount as follows: England \$532 40; Scotland \$387 20; Ireland \$653 40, making a total of \$1,573. Additional charges are made in certain cases, which increases the cost of obtaining a patent \$30 to \$90. *The outrage upon Ireland* in thus virtually depriving it of labor saving discoveries, may be readily explained," etc.

Now, by reference to the act of 1852, aforesaid, and to rules and regulations established by the Lord Chancellor under the same, it will be found that the first cost for Government fees, under ordinary circumstances, is about £30, (\$150). At the expiration, however, of the third and seventh years respectively, if it is desired to prolong the patent, the further sums of £50 and £100 (\$250 and \$500) have to be paid. Thus, if at the end of seven years the party interested sees fit to plank down £100, there will have been £180 (\$900) transferred from the pockets of the improver to the nest of greedy officials that hangs like a cancer about the neck of the "mother of patents."

It is bad enough truly, and cannot afford to be exaggerated; but the total amount is less than heretofore, and the *first expenditure*—an important item to inventors—is less than one-tenth of the former burdensome extortion.

The present fee also, be it remembered, may extend throughout the domains of an empire of near 200,000,000 souls, as the following extract from the 18 section of the aforesaid act will show.

"And it shall be lawful for the Lord Chancellor to cause such letters patent to be sealed with the Great Seal of the United Kingdom, and such letters patent so sealed shall extend to the whole of the United Kingdom of Great Britain and Ireland, the Channel Islands and the Isle of Man; and in case said warrant so direct, such letters patent shall be made applicable to Her Majesty's colonies and plantations abroad."

G. H. KNIGHT, Patent Att'y.



## TABLE OF RAILROAD BONDS, WITH MARKET VALUE.

CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT.	DUE.	OFF'D.	ASK'D.
Alabama and Tennessee	1st mortgage, convertible till 1872.	7	1872	90	
Baltimore and Ohio	Transferable. Taxed	6	1885	79½	
Do do	Coupons. Not Taxed.	6	1875		
Do do	"	6	1880		
Do do	"	7	1860		
Do do	"	6	1885		
Bellefontaine and Indiana	1st mortgage, convertible	6	1866	98	
Buffalo and Penn. State Line	1st mortgage, not convertible	7	1866		
Chicago and Rock Island	1st mortgage, convertible	7	1870	94	95
Chicago and Mississippi	1st "	7	1862		
Do do	2d "	7	1874	65	
Chicago and Aurora	1st "	7	1866		
Cincinnati Newcastle and Mich.	Real Estate.	7	1859	72½	30
Cleveland, Columbus, and Cincinnati.	1st mortgage, convertible	7	1859		
Do do do	No mortgage, convertible	7	1855		
Cleveland and Mahoning	"	7	1861		
Cleveland, Painesville and Ashtabula	1st mortgage	7	1861		
Do do	2d " not convertible.	7	1861		
Cleveland and Pittsburgh	1st " convertible	7	1860		
Do do	1st " 2d sec. convertible.	7	1873		
Cleveland and Toledo	1st mort. not conv. 73.	7	1863	74½	76
Cleveland, Zanesville, and Cincinnati.	1st mortgage " till 1855.	7	1867	75	80
Cincinnati, Hamilton and Dayton	2d mortgage.	7	1868	83	85
Cincinnati, New Castle and Michigan	1st mortgage, real estate, convertible	10	5 & 10 y's	27	30
Cincinnati Western	2d "	8	1857	44½	
Cincinnati, Wilmington and Zanesville.	"	7	1861	68	
Cincinnati, Indianapolis and Chicago	Real Estate.	8	1861	31½	
Cincinnati and Chicago	1st mortgage, convertible	7	1862	75	76
Columbus, Piqua and Indiana	2d "	7	1862	60	61
Do do do	Income.	10	1859	73	75
Columbus and Xenia	1st mortgage, convertible	7	1863	67½	68
Covington and Lexington	2d " till 1862.	7	1863	67½	68
Do do	Income.	10	1859	73	75
Dayton and Michigan	1st "	7	1867		
Dayton and Western	1st "	7	1862		
Dayton, Xenia and Belpre	1st "	7	1864	32	35
Eaton and Hamilton	1st mortgage	7	1862	60	
Erie and Kalamazoo	1st mort, guaranty Mich. So. R. R.	7	1862	80	81
Evansville and Crawfordsville.	1st Mortgage.	7	1861		
Frankfort and Lexington	1st "	6	1861		
Franklin and Warren	Pledge of 2d section, convertible.	10	1853-6	92½	
Galena and Chicago Union	1st mort.	7	1861	62½	63
Hillsboro and Cincinnati.	1st mortgage, not convertible	6	1875	75½	80
Illinois Central.	Freeland	7	1866	73½	74
Illinois do	1st mortgage, convertible	7	1866	63½	75
Indiana Central	"	10	1857	80	
Do do	"	7	1860-1	75	
Indianapolis and Bellefontaine.	Dividend.	7	1861	63	64
Indianapolis and Cincinnati	"	7	1861		
Indianapolis and Lafayette	1st " not "	7	1861		
Jeffersonville	1st " "	7	1867		
Junction (Ohio).	Real Estate.	10	1864	72	73
Do Indiana	"	8	1864	77	82
La Crosse and Milwaukee.	1st mortgage, not convertible.	6	1863		
Little Miami	" till 1855	7	1861		
Do	"	7	1873		
Louisville and Nashville.	1st mortgage, convertible	7	1855-6	75	
Lyons', Iowa, Central.	1st mortgage, convertible till 1855.	7	1860	75	
Mad River and Lake Erie.	2d "	7	1860	75	
Do do	Dividend	6	1861		
Do do	1st mortgage, convertible after 1853	6	1861		
Madison and Indianapolis	Domestic Bonds.	7	1868	57½	60.
Marietta and Cincinnati.	2d "	7	1868		
Do do	1st "	8	1860	97	
Hillsborough and Cincinnati	No mortgage, convertible	8	1855-6		
Maysville and Big Sandy	"	8	1857-8		
Maysville and Lexington	1st " not "	7	1860-90	100	
Memphis and Charleston	1st " "	8	1862		
Michigan Central.	1st mortgage 6s. 1884.	10	1858-62		
Do do	mortgage on 1st section	8	1864-75		
Do do	1st " on other sections, convert.	6	1873	101 7-8	102
New Castle and Richmond	1st " convertible	7	1867	84½	85
New York Central.	2d " convertible	7	1871	94½	95
New York and Erie.	1st mortgage, not convertible	8	1873		
Do do	1st mortgage, not convertible	7	1861	79	
Do do	1st mortgage Goshen line.	1868		85	86
Northern Cross, Ill.	Construction Bonds.	7	1861	61	
Northern Indiana.	1st mortgage, convertible.	7	1860	58	60
Do do	2d " convertible.	7	1867		
Do do	1st " "	7	1865		
Ohio Central.	Income. No mortgage, convertible	7	1872		
Ohio and Mississippi.	"	7	1866	100	110
Ohio and Indiana.	1st mortgage, convertible.	7	1873		
Ohio and Pennsylvania.	1st mortgage, convertible till 1860.	6	1880		
Do do	" convertible	7	1872		
Pacific, Mo.	1st " "	7	1860		
Panama	2d " "	10	1853-7		
Parkersburg (or Northwestern Va.)	1st " conv. coupons.	7	1861		
Pennsylvania	"	7	1865		
Peru and Indianapolis	1st mortgage, convertible	7	1862	75½	
Rock River Valley Union.	1st " "	8	1865		
Sandusky and Mansfield.	1st " "	6	1866		
Do do	2d " "	7	1863	87	88
Scioto and Hocking Valley	"	7	1863		
Southwestern, Tennessee	1st mortgage, convertible	7	1865		
Springfield and Columbus	1st " convertible	8	1862-72		
Steuensville and Indiana	2d " do	7	1865		
Terre Haute and Alton	1st mortgage, convertible	6	1866		
Do do	1st " "	7	1863		
Terre Haute and Richmond	"	7	1863		
Toledo, Norwalk and Cleveland	2d " "	7	1863		
Do do do	" Guar of C. C. & C.	1863			

## TABLES OF RAILROAD SHARES.

The following quotations are not PER SHARE, but upon the HUNDRED DOLLARS.

	shares.	off'd.	ask'd.
Baltimore and Ohio	100	44	44
Bellefontaine and Delaware	50		
Bellefontaine and Indiana	50	42	
Belleville and Illinoisstown.			
Buffalo and Pennsylvania State Line.			
Central Military Tract.			
Central Ohio	50	47½	50
Chicago and Rock Island		88	89
Chicago & Miss., (Alton & Springfield.)			
Cincinnati, Cambridge and Chicago.			
Cincinnati and Fort Wayne		10	
Cincinnati Hamilton and Dayton	100	75½	77
Cincinnati, Indianapolis and Chicago.			
Cincinnati and Chicago	50	10	15
Cincinnati Western	50	10	20
Cin. Wilmington and Zanesville.	50	40	42
Cleveland, Columbus and Cin	100	103½	106
Cleveland, Medina and Tuscarawas.			
Cleveland, Painesville and Ashtabula.	100		
Cleveland and Pittsburgh	50	40	41
Cleveland and Mahoning			
Cleveland and Toledo	50	76	77
Cleveland, Zanesville, and Cincinnati.			
Clinton Line.			
Columbus and Lake Erie			
Columbus, Piqua and Indiana.			
Columbus and Xenia		94	100
Covington and Lexington.	50	27½	35
Covington and Ohio, Va.			
Dayton and Michigan	50		
Dayton and Western	50	20	22
Dayton Short Line	50		
Dayton, Xenia and Belpre.			
Detroit and Pontiac.			
Eaton and Hamilton	25	25	27
Eaton and Piqua			
Erie and Northeast.		99	
Erie and Kalamazoo			
Evansville and Crawfordsville.			
Fort Wayne and Mississippi.	50		
Fort Wayne and Southern	25	12½	13
Franklin and Warren			
Galena and Chicago Union	100	90	96
Greenville and Miami	50	11½	
Hannibal and St. Joseph.			
Harlem		30½	33
Hudson River		46	48
Henderson and Nashville			
Hillsboro' and Cincinnati	50	18	25
Illinois Central 10 per cent.	100	96	100
Illinois and Wisconsin.			
Indiana Central	50	45	60
Do do 10 per cent	50		
Indianapolis and Bellefontaine	25	46	50
Indianapolis and Cincinnati.	50	56½	58
Indianapolis and Lafayette.	50		
Jeffersonville and Indianapolis.	50		
Junction (Ohio)	50	15	17
Junction (Ind.)		12½	
La Crosse and Milwaukee.	100		
Lake Erie, Wabash and St. Louis.			
Lexington and Frankfort.			
Lexington and Danville			
Little Miami.	50	100	101
Logansport and Pacific			
Logansport and Marion			
Louisville and Frankfort	50		
Louisville and Nashville	100		
Macon, Georgia	10		
Mad River and Lake Erie.	50	33	35
Madison and Indianapolis.	50		
Madison, Indianapolis and Peru.	50	20	
Marietta and Cincinnati	50	25	30
Marion and Mississinewa Valley.			
Maysville and Lexington	50		
Maysville and Big Sandy			
Memphis and Charleston			
Michigan Central.		83	84
Michigan Southern		101½	103
Milwaukee and Mississippi			
Mobile and Ohio			
Nashville and Chattanooga			
New Albany and Salem	50	20	20
New Orleans and Ohio			
New York Central.		93½	96
New York and Erie	100	50	50½
Northern Indiana.		97	98
Ohio and Indiana			
Ohio and Mississippi	50	26	30
Ohio and Pennsylvania.	50		85
Ohio River and Wabash			
Pacific, Mo.			
Panama			
Parkersburg, or Northwestern Va.		94	99
Pennsylvania	50	43½	44
Peru and Indianapolis	25	30	
Sandusky and Mansfield.	50		
Sandusky, Mansfield, and Newark	50		
Reading.		86½	88
Scioto and Hocking Valley	50		
Southwestern Indiana.			
Southwestern, Tenn.			
Springfield Mt. Vernon and Pittsb'gh.	50		
Springfield and Columbus.			
Steuensville and Indiana			
Terre Haute and Alton			
Terre Haute and Richmond.	95		100
Toledo and Illinois.			
Toledo, Norwalk and Cleveland.	50		



## STOCK TABLE.

CORRECTED WEEKLY.

## Government Securities.

	INT.	DEB.	OFF'D.	ASK'D.
U. S. Loan.....	6	1856	102	105
Do .....	6	1862	110	113
Do .....	6	1867	116½	118
Do .....	6	1868	120	122
Do (int. ceased July 1).....	5	1853		102
Do Coupons.....	6	1862		118
Do ".....	6	1867		118
Do ".....	6	1853		101

## State.

Alabama.....	5			
California.....	7	1870	91½	92
Arkansas.....	6			96
Georgia.....	6		95	99½
Do .....	7			
Illinois Canal Bonds.....		1860		
Do do registered.....		1860		
Do do .....		1847		
Do do registered.....		1847		
Do do Internal Impt. 6.....	6	1847	94	95
Do Interest do .....			64	64
Indiana.....	5		83½	84
Do .....	2½		52	52½
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	97	
Do .....	5			

Louisiana.....	6		91½	92
Michigan.....	6		97	98
Missouri.....	6		93½	95
New York.....	6	1860-61	103	110
North Carolina.....	6		99	100
Ohio.....	6	1856	101½	
Do .....	6	1860	104½	105
Do .....	6	1870	111	112
Do .....	6	1875	104	106½
Do .....	5	1855		
Pennsylvania.....	6			
Do .....	5	1870	87	90
Tennessee, long loan.....	6	1890	94	95
Do Coupons.....	5			
Virginia Coupons.....	6	1886	97	98

## City Securities.

Albany.....	6	1871-81	97½	
Allegany.....	6	1875-7	77	
Baltimore.....	6	1870-90	91½	92
Do .....	5	1865		
Boston Bonds.....	4½	1860		
Chicago.....	6	1873-7	92½	95
Cleveland.....	6	1879	101½	102½
Cincinnati.....	6	1860-92	89½	90½
Do .....	6	1897		
Do .....	5	1884		
Do W. W.....	6	1865		
Covington, (to Bridge Co.).....	6		72½	
Lawrenceburg, Ia.....	7			
Louisville.....	6	1880	84	89
Memphis.....	6	1882		
New York.....	7	1857	100½	
Do .....	5	1858-60	96	98
Do .....	5	1870-5	97	100
Do .....	5	1890		
Philadelphia.....	6	1876-90	87½	88
Pittsburgh.....	6	1869-78	75½	76½
Do coupons.....	6	1863		
Racine.....	7	1873	61½	63
St. Louis.....	6	1870	79	80
Wheeling.....	6	1872	70	72

## County Bonds.

Bourbon, Ky.....	6	1881		
Darke, O.....	7			
Fairfield, O.....	7	1862		
Fayette, Ky.....	6	1881-3	75	75
Hancock Co.....	7		79	80
Mason, Ky.....	6	1881	67	66½
McCracken Co. Ky., endorsed by New Orleans and Ohio R.R.				
St. Louis.....	6	1866	76	77
Do .....	7	1871		

## Banks.

American Exchange Bank, N. Y.....		105½		
Ohio Life Insurance and Trust Co.....		85½	90	
Washington Ins. Co.....		84	85	
City Insurance.....		70		
Cincinnati Ins. Co.....		84		
National Insurance.....		75	80	

## KENTUCKY.

Bank of Kentucky and Branches.....			100	
Northern, and Branches.....				
Southern, and Branches.....				
Bank of Louisville.....			93	
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....			102	103
Commercial Bank of Kentucky.....				

## INDIANA.

State Bank and Branches.....				
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## TENNESSEE.

State Bank and Branches.....				
Union.....				
Panthers.....				

## LAND WARRANTS.

	Off'd.	Ask'd
160 acre warrants.....	\$176	
80 acre warrants.....	88	
40 acre warrants.....	44	

## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	¾	1 prem.
Boston.....	Sight.....	¾	1 prem.
Philadelphia.....	Sight.....	¾	1 prem.
Baltimore.....	Sight.....	¾	1 prem.
New Orleans.....	Sight.....	¾	100 to par.
England.....	Sight.....	100	110½.

## SPECIE.

	GOLD.
California clean, \$ oz.....	\$17 50 @ \$17 65
Spanish Doubloons.....	16 00 @ 16 00
Patriot Doubloons.....	15 60 @ 15 80
Sovereigns.....	4 85 @ 4 87
Guineas.....	5 00 @ 5 00
American, new.....	1 00 @ 1 00
American, old.....	1 06 @ 1 06
Portuguese.....	1 00 @ 1 00½

## SILVER.

American Dollars.....	1 04 @ 1 04
American, halves.....	1 04 @ 1 04½
Spanish Dollars.....	1 12 @ 1 13
Spanish Quarters.....	1 00 @ 1 01
Mexican Dollars.....	1 05½ @ 1 06
Five Franc pieces.....	97½ @ 98

## CINCINNATI STOCK SALES.

AT THE STOCK BOARD,

## MERCHANTS' EXCHANGE

And at Private Sale.

## BY HEWSON &amp; HOLMES.

For one week ending May 9, 1855.	
\$ 1500 Cov. & Lexing. R. R., 6 per cent. Income Bonds.....	58 (& inst.)
2500 Cov. & Lexing. R. R., 10 per cent. Income Bonds.....	73 (& int.)
5000 Col. Piqua & Ind. R. R., 7 per cent. 2d Mort. Bonds.....	60
2000 Ohio & Miss. R. R., 7 per cent. 2d Mort. Bonds.....	58
5000 Indianapolis & Cin., 7 per cent. 2d Mort. Bonds.....	75
1000 Little Miami R. R., 7 per cent. inconvertible Bonds, due in 1858.....	92½
1000 Cin. & Chicago R. R., 8 per cent. R. Estate Bonds.....	31½
2000 Cin. Ham. & Day. R. R., 7 per cent. 2d Mort. Bonds.....	83 (& int.)
300 Cin. Ham. & Day. R. R., 7 per cent. Div. Scrip.....	82½
63 shares Cov. & Lexington R. R. Stock 25	
22 " " " " " " " " " " " "	27½
40 " Eaton & Hamilton " " " " " "	25
60 " Cin. Wil. & Zanes. " " " " " "	40 (& int.)
105 " Little Miami, " " " " " "	100
100 " " " " " " " " " "	99½
45 " Cin. & Chicago " " " " " "	9½
230 " " " " " " " " " "	10
50 " Cin. Ham. & Day. " " " " " "	75
100 " " " " " " " " " "	75½
50 " " " " " " " " " "	74½
40 " Peru & Indianapolis " " " " " "	30
266 " Ohio & Mississippi " " " " " "	25 (& int.)
80 " " " " " " " " " "	26
200 " Cin. Har. & Ind'llis " " " " " "	5½
36 " Indianapolis & Cin. " " " " " "	56½
20 " Col. and Xenia, " " " " " "	93½
61 " Dayton & Western " " " " " "	20
15 " Bellefont. & Ind. " " " " " "	42
40 " Mad Riv. & L. Erie " " " " " "	33

## Monetary and Commercial.

No new feature of interest has been developed since our last issue in the money market. The supply of capital has been quite equal to the offerings of first class paper, although the demand has somewhat increased. Rates on strictly first class range from 10 to 12 per cent., and on other paper from 15 to 24.

Exchange on the East has advanced to ¼ @ 1 premium. On New Orleans it has declined to ½ discount @ par, the demand being very limited.

The 6 per cent. bonds issued by this city to pay for the wharf property of the Ohio & Mississippi Railroad have been taken by Messrs. Duncan, Sherman & Co., of New-York, who have made resales of them @ 97.

The breaking up of the Vienna Conference has had a slightly depressing influence on money and stock matters in New-York, but as the demand is limited and an abundant supply of capital, there has been no change in the rates of interest.

Until the present week the weather has been favorable for all kinds of crops, and encouraging accounts are received from almost all quarters. The cool temperature of the atmosphere of the last few days has induced many fears for the fruit crop. We have not however heard of any serious results.

A London Circular by the Atlantic reports as follows, with reference to American securities:

Our market for American securities continues very firm, and the demand for first class bonds exceeds the supply at present quotations; prices here of the leading Railroad bonds are comparatively below the New-York prices. Sales have been made of Erie, 1883, at 84; New York Central 7 per cent. at 93.

The loan of sixteen millions has been taken by Messrs. Rothchild at the following rate, viz: Consols at par, and an annuity of 14s 6d per cent., terminable in thirty years. On close calculation this would make the present value of Consols to be £26 14s 3d per cent.

In the European Market for breadstuffs and provisions says Richardson, Spence & Co., there is an improved feeling. The weather will now begin to have its influence on prices. At present it is all that could be desired by the farmer, but vegetation is fully a month behind last year, and should anything occur to injure the growing crop, we may expect a material advance. The uncertainty, however, of political affairs prevents any speculative feeling.

Beef is more active, but the demand is almost entirely on low qualities.

Bacon is in good consumptive demand, and has advanced 6d. to 1s. per cwt.

Lard has advanced 1s. per cwt., with sales of 250 tons at 46s. @ 46s. 6; holders now ask 47s. @ 46s.

Tallow has advanced 2s. @ 3s. per cwt., with sales at 52s.

## APPLICATION OF THE AIR PRINCIPLE TO THE LOCOMOTIVE.

The Indianapolis *Locomotive* thus notices a new application of this principle: "We have been shown drawings and designs that convince us that a high point in mechanism has been attained, in the combination of steam and air in boilers, which will greatly save fuel in Locomotives, the freight of wood and water, and other attainments. Mr. Z. H. Mann, of this city, has so arranged and applied *Atmospherical Air* to Locomotives and other Engines, that it can be successfully used with steam, thereby making a perfect union of the three elements, increasing the volume of steam with a much less temperature, saving at least thirty five per cent. of the fuel now consumed in the most economical Engines in use, and producing the same amount of power. A patent has been secured."

We presume this is an application of a principle patented several years ago, by an enterprising mechanic in Troy, New York. His invention consisted in introducing atmospheric air into the cylinder at a certain position of the piston. Steam contains a large quantity of latent heat, which is thus communicated to the cool air, and adds to the expansive power of the mixture. The experimental engine which was exhibited at that time, showed that the introduction of the air added about one-fifth to the power of the engine. The engine we refer to, was stationary, but we know no reason why the principle should not be equally applicable and useful in the locomotive.

## Cleveland &amp; Columbus Railroad.

OFFICE—Cleveland, Ohio.

Alfred Kelly, Pres't.....E. S. Flint, Sup't.

## Cleveland &amp; Erie Railroad.

OFFICE—Cleveland, Ohio.

William Case, Pres't.....L. Tilton, Sup't.

## New York Central Railroad.

OFFICE—Albany, N. Y.

E. Corning, Pres't.....C. Vibbard, Sup't.

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## PATENT ATTORNEY,

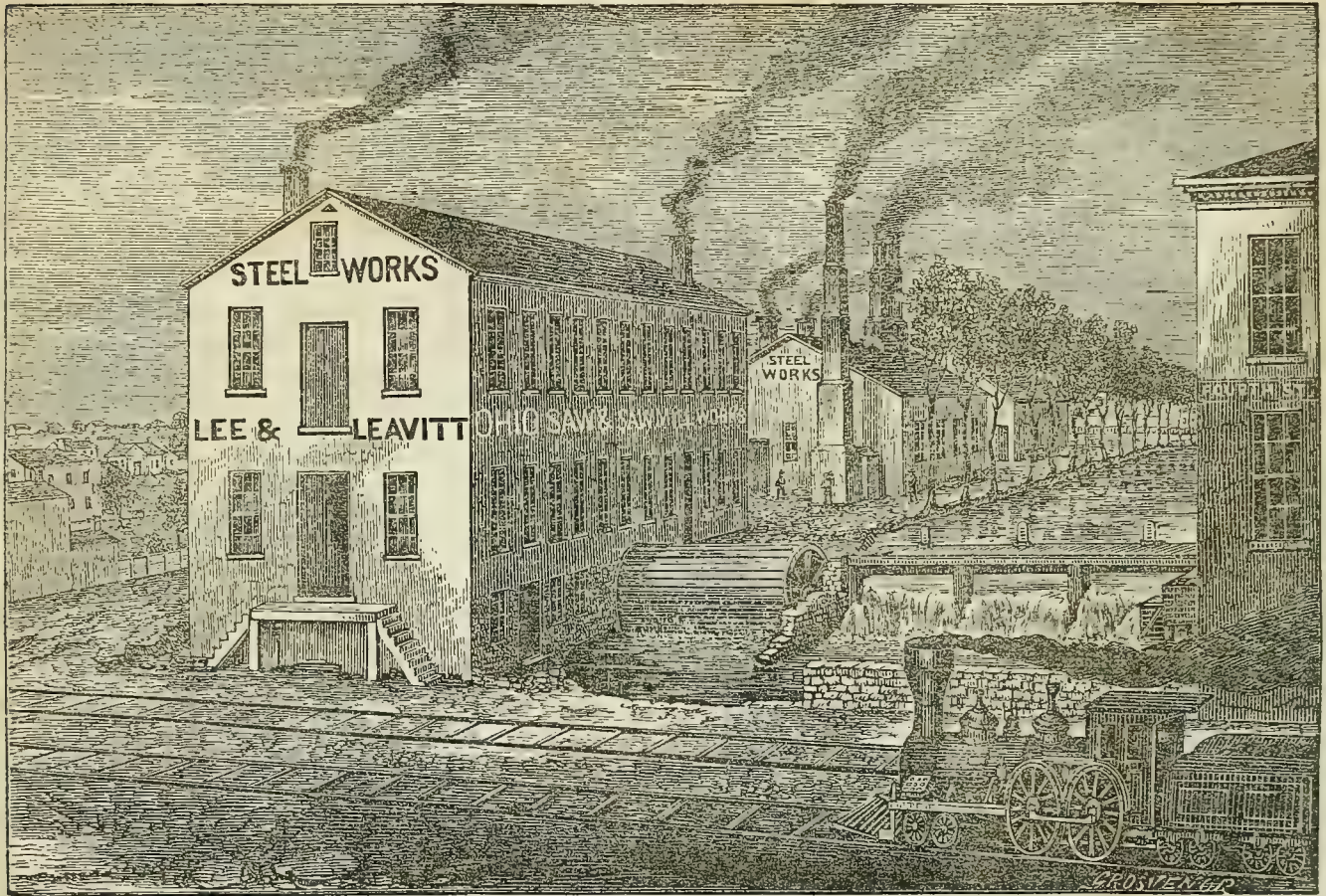
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## REFER TO

Judge McLean, U. S. S. C., Prof. John Locke, Cincinnati, Ohio, Niles & Co., Cincinnati, Ohio, W. B. Chapman, Pres. Pharm. Soc'y, Gen. James Semple Ill., Judge Walker, Cincinnati, Ohio, Elijah Coffin, Richmond, Ind., Col. S. H. Long, U. S. Top. Engineer



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### Buffalo & Erie Railroad.

OFFICE—Buffalo, N. Y.

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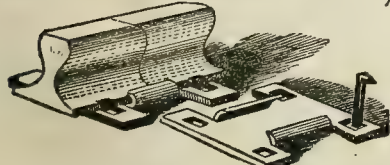
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the LARGE MAPS OF CINCINNATI, and HAMILTON CO.,  
Ohio, and the TOWNSHIP MAPS OF INDIANA and Iowa.

MAPS OF EVERY DESCRIPTION.

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**Chairs and Fastenings.**

THE undersigned will continue to manufacture with increased facilities, HOOK & FLATHEAD R. R. SPIKES, of all Patterns, WROUGHT and CAST CHAIRS, and FASTENINGS, BOILER RIVETS, BOLTS, SHIP and BOAT SPIKES, &c., &c.

The best quality of refined iron is used, and all orders filled with despatch.

J. HOPKINSON SMITH,

No. 25, South Charles-st.

Please direct the name in full.

Baltimore August 31-1

**RAILROAD IRON, LIGHT WEIGHT.**

470 TONS, 47 lbs. per yard, good quality and pattern, now lying at New Orleans. For terms apply to  
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New York

**Railroad Record**

PUBLISHED EVERY THURSDAY MORNING,

By T. WRIGHTSON & CO.

Office No. 167 Walnut Street,

E. D. MANSFIELD, EDITOR.

J. A. JAMES,  
W. WRIGHTSON, } ASSOCIATE EDITORS.

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HORSE POWERS.—The undersigned being agents for the sale of R. H. Pease formerly Emery & Co.'s Horse Powers, are prepared to furnish them to order. They occupy little room and do their work effectually. T. WRIGHTSON & CO.

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WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

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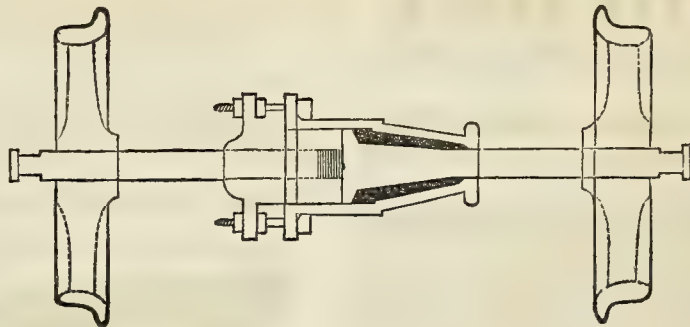
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T. WRIGHTSON & CO.,

Railroad Record Office, 167 Walnut St. Cin.

**DENNEY'S DIVIDED CAR AXLE.**



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**

Gap, Pa.



**28**  
**PLATT STREET.**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Frosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches.**  
**WHALEBONE & STEEL WIRE BRUSHES.**  
**Artesian Well Tubes**  
**Screwed flush inside and outside.**  
**FREE-JOINT TUBES**  
**For Core-Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**  
**HOLLOW SLAB WATER TUYERES,**  
**For Smiths' use, and**  
**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

for warming air, boiling water and heating ovens.

**ANNULAR**

**Surface Condensers**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

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**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length.)

**CAST-STEEL CANNON**

of any calibre.

**PATENTED CAST-STEEL TIRES,**

For Railway Wheels. Railway Axles and Springs.

**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

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**BRASS FOUNDERS,**  
 No. 154 Front street, between Pike and Butler sts.,  
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**STOP COCKS, Bibb, Flange, Valve, Gauge, and**  
**Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes,**  
**Couplings, Sift Well, and Hose Joints; Steam Whis-**  
**tles, Distillery Work, General Brassers, Anti Friction**  
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Pumps of all descriptions, Brass and Composition Castings, Dixon's best Black Lead Crucibles.

Also, Dr. Ransom's Patent Constant Suction Pump for Railroad Water Stations.

**RAILROAD IRON.**

I WOULD respectfully call the attention of Railroad Companies and Contractors to my facilities for

**NOTCHING RAILROAD IRON**

Suitable to be spiked in the Chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. Address,

jan11.-tf. S. M'KENNA,  
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**THOS. M. CASH,**  
**PHILADELPHIA RAILWAY AGENCY.**

For the purchase of all articles required by Railway Companies, On Commission.

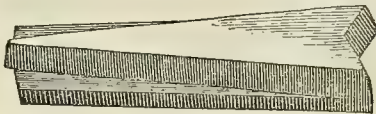
Office, No. 80, South Fourth-street, near Walnut,

**PHILADELPHIA.**

**REFERENCES**

Richard Norris & Son, Locomotive Builders, Philad'a.  
 Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "  
 Charles H. Fisher, Esq., "  
 Jno. Caldwell, Esq., Pres't S.C. R.R. Co. Charleston, S.C.  
 Pinckney Huger, Esq., Pres't N. E. R.R. Co. "  
 Oct. 13.-tf.

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**

**Lathe Mandrels, Gauges**

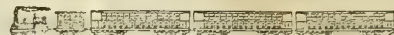
of every description for blacksmiths use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,  
 15 Walnut-st, Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**Cincinnati, Hamilton, and Dayton**  
**RAILROAD.**



**SUMMER ARRANGEMENT.**

COMMENCING MONDAY, MAY 7th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**SECOND TRAIN.**

Indianapolis Express, at 6.05 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 12 M., for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.15 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Passengers by the 6 A. M. Lightning Express Train, go directly through to Cleveland without changing cars. Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot. HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the office.

**WINTER ARRANGEMENT.**  
**SAFETY—SPEED—COMFORT.**

**Cincinnati to Indianapolis.**  
**St. Louis, Chicago, Galena and Rock Island,**

**BY THE WAY OF THE**  
**CINCINNATI, HAMILTON AND DAYTON,**  
**AND EATON & HAMILTON RAILROADS.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route on any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

**THROUGH BY DAYLIGHT TO TERRE HAUTE,**  
**LAFAYETTE, PERU, &c.**

Trains leave the Depot of the Cincinnati, Hamilton and Dayton Railroad as follows, viz:

First Train—Lightning Express at 6 A. M.

Second Train—Accommodation, at 2.15, P. M., connecting at Richmond with train for Hagerstown, New-castle, &c., &c.

Third Train—Accommodation, at 5.20, P. M., for Richmond and intermediate points.

Returning, reach Cincinnati at 10, A. M. and 12 M. and 6, P. M.

Fare to Indianapolis .....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut-st., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth-street Depot. JOHN W. SHIPLEY, Agent.

The Omnibus Line will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
 feb. 8-1y D. M. MORROW, Superintendent.



# Baltimore & Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALT MORE.

THIS Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
Through Tickets from all Parts of the West, ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis  
Chicago, Toledo, Detroit, Cleveland, Columbus,  
Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED  
**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILA-**  
**DELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**PHILADELPHIA AND NEW YORK RAILROADS,**  
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericsson Steamers by Canal to Philadelphia and New York, And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.  
**WM. G. HARRISON,** President.  
**JOHN H. DONE,** Mast. of Transportation,  
je. 8† Baltimore.

## The Shortest, Quickest and Best ROUTE TO LOUISVILLE.



MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.

**OHIO & MISSISSIPPI RAILROAD,**  
ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER notice, the Passenger Trains will run as follows:

**For Louisville and New Albany.**  
Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.  
Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.**  
**For Indianapolis.**  
Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.  
Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.**  
**For Lawrenceburg and Aurora.**  
Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.  
Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M. 2.30 P. M., 4.05 P. M., and 9.30 P. M.

FREIGHT TRAINS for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.  
For further information see handbills, or apply at the Ticket Office, on Fourth street, north side, four doors from Vine street, opposite new Custom-house.

S. S. POST,  
Chf. Eng'r and Supl.  
Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.  
Omnibuses call at all the principal Hotels, for each train.  
W. S. BABCOCK, Agent,  
Sept 5. St. Louis and Cincinnati Omnibus Line.

# 1855. Winter Arrangement, 1855. COMMENCING MONDAY, JAN. 29.



**LITTLE MIAMI AND COLUMBUS AND XENIA RAILROAD.**—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

FROM CINCINNATI TO	
To New York in.....	32 1/2 hours.
To Philadelphia in.....	31 1/2 "
To Washington in.....	29 "
To Baltimore in.....	28 "
To Buffalo in.....	16 1/2 "
To Dunkirk in.....	15 "
To Cleveland in.....	9 1/2 "
To Sandusky in.....	8 1/2 "
To Pittsburgh in.....	14 "
To Wheeling, in.....	10 1/2 "

## FOUR DAILY TRAINS.

**FIRST TRAIN.**—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

**SECOND TRAIN.**—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

**THIRD TRAIN.**—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stop at all points between Cincinnati and Morrow.

**FOURTH TRAIN.**—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.  
Trains run by Columbus time—7 minutes faster than Cincinnati.

## FARE AND THROUGH TICKETS.

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-boat Landing, or at the Eastern (Little Miami) Depot, East Front street.  
WM. H. CLEMENT, Superintendent.  
P. W. SRADER, General Agent.

## OMNIBUS LINE.

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

## COLUMBUS PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West and from Urbana, East.  
On and after Monday September 19, 1853, two trains per day, (Sunday excepted) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a.m., and 3.30 p.m., arriving at Urbana at 8.12 a.m., and 6.14 p.m. Returning—will leave Urbana, for Columbus, at 9.15 a.m., and 3.00 p.m., arriving at 12.05 and 6.55 p.m.

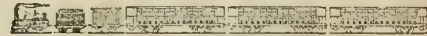
The 4.50 a.m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p.m. train, arriving at Urbana in time to get supper and take the 5.35 p.m. train for Dayton and Cincinnati.

The 9.15 a.m. train from Urbana connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a.m.—arriving at Columbus at 12.05 p.m. in time for the 1 p.m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p.m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p.m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Sup  
Piqua, Sept. 13, 1853. <9-1†.

# PERU & INDIANAPOLIS R. R.



Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also, connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.

Indianapolis, March 22, 1855.

## Covington and Lexington Railroad.

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.  
On and after MONDAY Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M. stopping at Grant's Bend New Philadelphia, Canton Benton, Clarkson, Demossville, Butler, Irving, Fairmount, Callenville, Boyd's, Berry's, Robinson's, Gannett's Cynthia, Laird's and Kiser's and arriving at Paris at 11.30 A. M.

Returning, leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leave Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train lie over night at Paris and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

RATES OF FARE.	
Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

## FOR THROUGH TICKETS.

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.  
J. M. DOUGHERTY,  
Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices.  
oct. 17- CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis by Indianapolis & Cincinnati Railroad,

## VIA LAWRENCEBURG,

IN connection with the **OHIO & MISSISSIPPI RAILROAD.** Passenger Trains leave Cincinnati at 7.15 A. M., and 3.15 P. M. Arrive at Indianapolis at 11.30 A. M., and 8.30 P. M.

By morning train passengers arrive at Chicago in 14 hours, and at St. Louis in 28 hours.

Freight shipped to Indianapolis and all other points West and North without delay at cheapest rates.

Cars run from Lawrenceburg to Terre Haute, Lafayette, Peru and Chicago, without unloading.

Office, foot of Main street corner of Water street.

SIDNEY RICE, Agent.

Cincinnati Sept. 28, 1854.

## Terre Haute & Richmond R. R.



**TERRE HAUTE, VINCENNES, EVANSVILLE, PARIS AND CHARLESTON.**

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1.10 P. M., (after the arrival of the trains from Cincinnati) arrive at Terre Haute at 4.49 P. M. Passengers for Paris and Charleston take the cars of the Terre Haute and Alton Railroad, which leave daily at 7.30 A. M. Those for Vincennes and Evansville take the cars of the Evansville and Crawfordsville Railroad daily, at 8.30 A. M.

Passenger Train leaves Terre Haute daily, Sunday excepted, at 7 A. M. for Indianapolis, connecting with Trains for the East, Cincinnati, and Louisville.

## FARES.

Indianapolis to Terre Haute.....	\$2 25
Terre Haute to Vincennes.....	2 25
" " to Evansville.....	4 00
" " to Paris.....	
" " to Charleston.....	

Terre Haute, March 12, 1855. 6m. Superintendent.

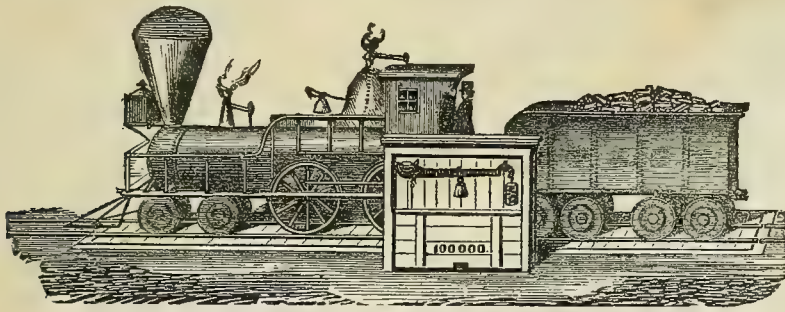


ISAAC RIGDON.

EDWARD C. RYLAND.

WM. HUDDART.

## OHIO SCALE WORKS.



**Rigdon, Ryland & Co.,**  
No. 39 Vine Street, between Front and Columbia streets,  
CINCINNATI.

WE are now prepared to furnish **Railroad Track and Depot Scales** of all sizes, which we warrant in every respect equal to any manufactured in the United States.  
Being practical workmen ourselves, we feel confident that we can furnish the West and South with as good an article and cheaper than can be bought East.  
Cincinnati, June 29, 1854.

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.

LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.  
They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of St and Machinery required for railroads.

Particular attention will be paid to repairing, which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNIS & PECK,  
c. S. 1f Louisville, Ky.

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Railroad Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

## NUGENT'S COLLEGE

OF

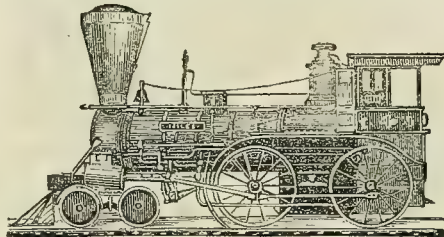
ENGINEERS &amp; MECHANICS,

PUBLIC SQUARE, CLEVELAND, OHIO;

C. NUGENT, C. E., Principal.

THE design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
au. 10.

## LOCOMOTIVE WORKS.



## NILES &amp; CO.,

CONGRESS STREET, CINCINNATI,

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c., &c.  
Feb. 13 1855-6m.

## Lightner's Patent Axle Boxes for Railroad Cars.

THE attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent below that of most boxes in use. They will save about 75 per cent in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and Testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846-6. Office, No. Courtland st., New York.

## PROSSER'S PATENT

## Lap-Welded Iron Boiler Tubes.

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Awning Frames, Loaders, etc.  
Brass Boiler Tubes.

Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

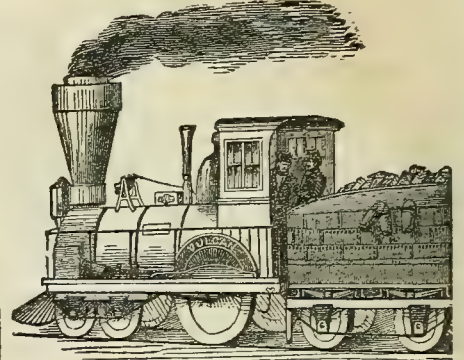
Agents for Krupp's celebrated Cast Steel for Shafts Railway Axles, Tyres, Platers' Rollers, etc.

P. S.—All Tools necessary for the construction or keeping in order of Tubular Boilers.

THOS. PROSSER &amp; SON

28 Platt street, New York.

## Cincinnati Locomotive Works!



THE undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap. 20 MOORE & RICHARDSON.

## W A S O N ' S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T & F. Wason, Springfield, Massachusetts.

## Railroad Car Findings.

BRIDGES &amp; BROTHER,

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Castings Fitted Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

## LOCOMOTIVE ENGINE LANTERNS,

From the best Manufacturers, and at their prices. Car Hand, and Signal Lanterns.

## Cotton Duck for Car Covering,

Of any required width to 124 inches.

## ENAMELLED HEAD LININGS

Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan, and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

## Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

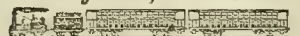
Late Davenport & Bridges, Car Manufacturers, Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.  
+oc6

## CAR MANUFACTORY,

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops, are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and switches of the most approved patterns.

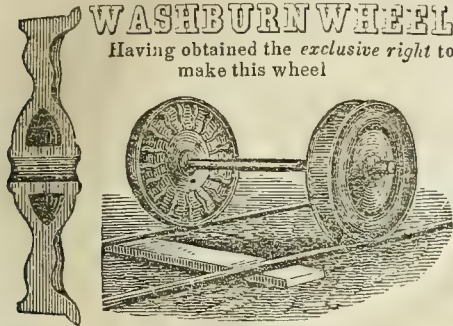
They also manufacture blacksmith tuyeres, Harris' Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan. 24th, 1855. Jan. 25-t



**FULTON CAR WORKS,**  
CINCINNATI, OHIO.

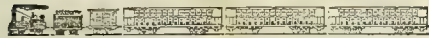
THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address KECK & HUBBARD,  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.



**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight-wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

DOUGLASS, SMITH & CO.,  
Muskingum Works, Zanesville, O.

J. DAVENPORT . . . M. D. WELLMAN . . . C. M. RUSSELL  
**DAVENPORT, RUSSEL & CO.,**

**Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

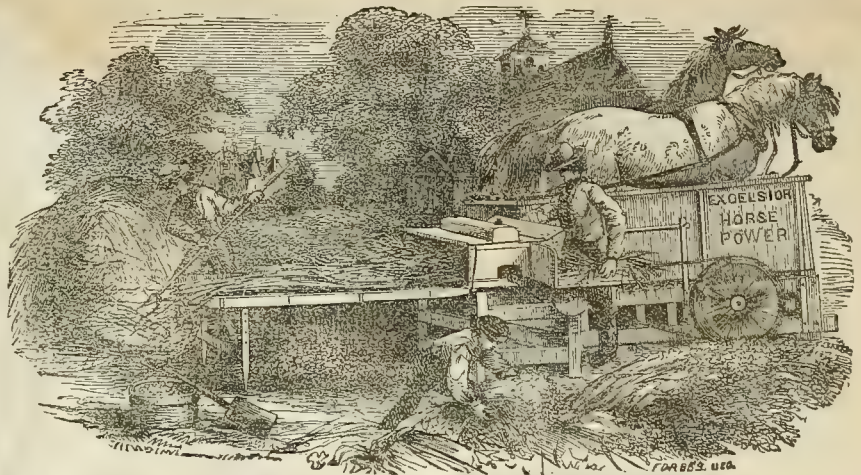
Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16<sup>th</sup> JOSEPH DAVENPORT—

**S. C. THOMSON & CO.,**

MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars,  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n.12<sup>th</sup> NEWARK, N. J.



**RICHARD H. PEASE, Proprietor,**  
**ALBANY, NEW YORK.**

**THE EXCELSIOR**  
**RAILROAD HORSE POWER,**  
**FOR VARIOUS RAILROAD PURPOSES,**

Is not surpassed by any now in use. It combines all the qualities of the most celebrated railroad horse powers, with some very valuable improvements.

The single power, attended by three men, will saw from twenty to twenty-five cords of wood in one day. The double power will perform almost double the amount of work in the same time, with only one additional man.

The construction of this power is such that its motion can be readily changed from slow to fast with the same speed of the horse, as the gears are all outside the power, and accessible at all times.

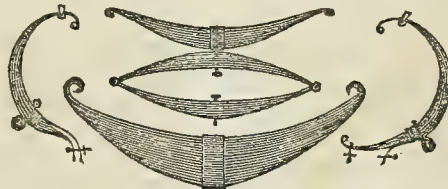
For further particulars, address

**T. WRIGHTSON & CO., Agents,**

167 Walnut Street, Cincinnati, Ohio.

**MCDANEL & HORNER,**

**LOCO- AND CAR**  
**MOTIVE SPRING**



**MANUFACTURERS, WILMINGTON, DEL.**

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

MCDANEL & HORNER.

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge

References.

NORRIS BROTHERS, Locomotive Builders, Philad.

A. C. GRAY, Prest New Castle Manuf. Co.

U. WELLS, R. R. Car Manuf. Petersburg, Va.

I. R. TRIMBLE, Supt. Philad. R.R. Co.

May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.

EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.

THOMAS DOUGHERTY, Master Mach. do.

THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.

**RAILROAD HOTEL.**

CINCINNATI, O.

THE GIBSON HOUSE, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.

A. WETHERBEE, Proprietor.

CINCINNATI, HAMILTON AND DAYTON RAILROAD, SECRETARY'S OFFICE.

THE ANNUAL ELECTION of the Stockholders of this Company will be held at the office of the Company in Cincinnati, on Monday, the 7th proximo, at 9 o'clock A. M.

The Annual Election for the choice of Directors to serve for the ensuing year will be held at the same place, and on the same day, between the hours of 2 and 5 o'clock P. M.

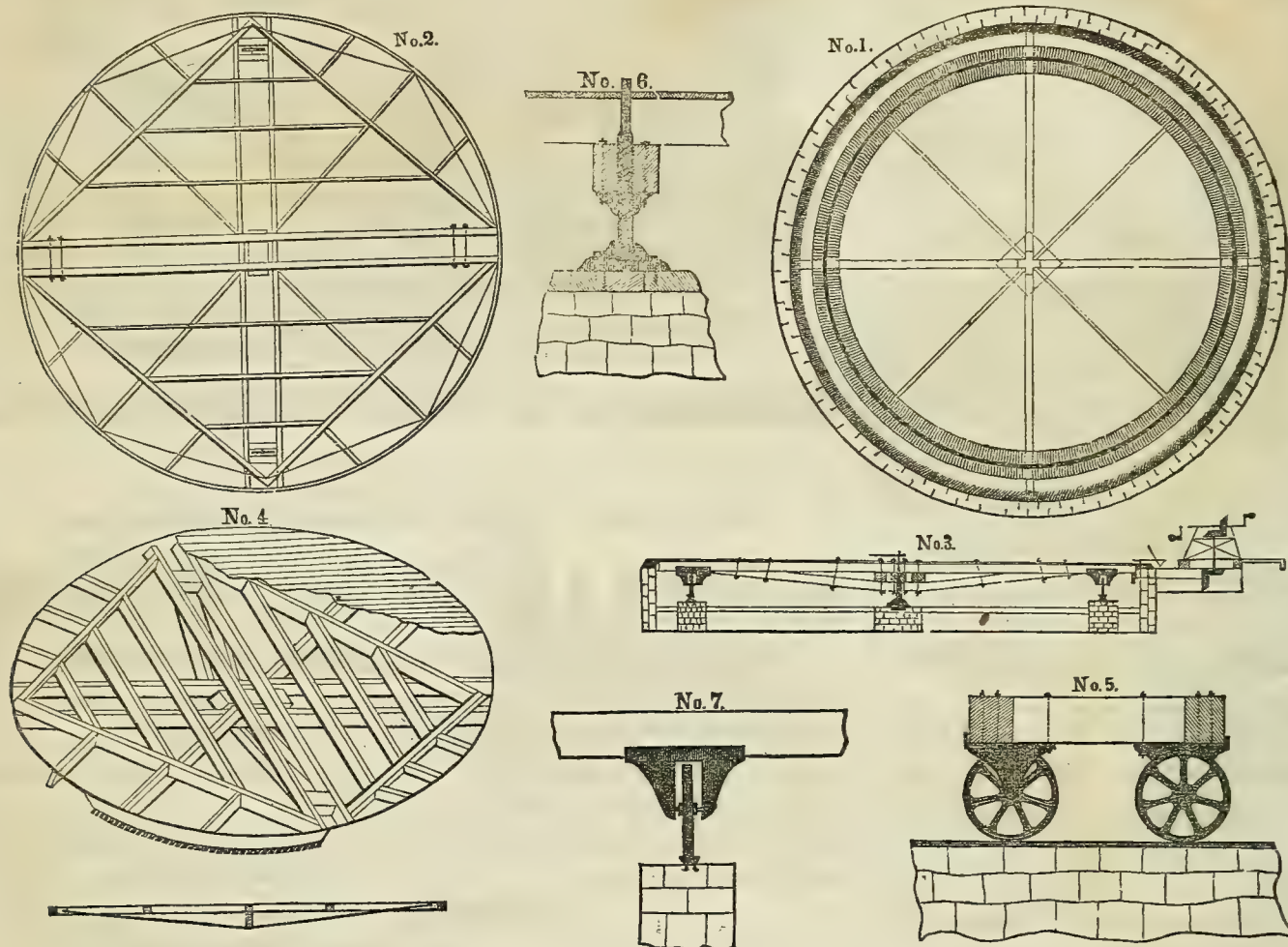
FRANK S. BOND, Sec'y.

Cincinnati, April 2d, 1855.—Apr. 5<sup>th</sup>.



# CARHART'S IMPROVED TURNTABLE.

Now building for 13 of the Principal Roads in Ohio, Indiana, New York, New Jersey, and North Carolina.



This Table, together with an Engine and Tender of 30 Tons Weight, can be Turned by One Man in 25 Seconds.

RAILROAD COMPANIES in want of Turntables of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction. The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President.  
S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland Ohio.

Columbus, Piqua & Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer, Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroads, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Sup't, Marion, Ohio.  
Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.

Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony, President

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of Bank and Track Walls, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The Track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.  
Fig. 3, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

D. M. CARHART, Cleveland, Ohio.

## MATHEMATICAL INSTRUMENTS.



T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut sts.

No. 1, 2d STORT, APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

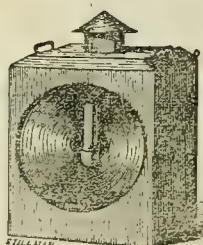
Surveyors' and Engineers' Instruments, Theodolites, Transits,

Levels, &c., &c.,

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

## LOCOMOTIVE LANTERNS.



[m124]

I AM now manufacturing  
**LOCOMOTIVE  
LANTERNS**

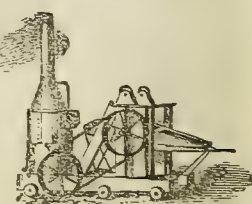
of the most approved form, with true Parabolic Silver-plated Reflectors, Copper Cases, and in every way equal to the best manufactured in the country.

Orders from Railroad Companies in the West are solicited.

A. S. WINSLOW,  
9 and 11 West Second St. Cincinnati.

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying Use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power, and works equally as well horizontally or at any angle, as perpendicularly. A silver medal, the highest prize, was awarded these Machines at the World's Fair. Applications for Territorial Rights and Machines must be made to the Patentee.



G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
J. A. JAMES, } Associate Editors.  
W. WRIGHTSON, }

CINCINNATI:

THURSDAY MORNING.....MAY 17, 1854.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

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## TO DELINQUENT SUBSCRIBERS.

We would respectfully ask from those of our subscribers and advertisers, whose accounts are not yet settled, to forward to us the amount of their bills. This to them small item, would, in the aggregate to us, aid us materially in replacing the property destroyed by the fire. Our loss by this accident has been about ten thousand dollars, about one-half only covered by insurance. If the money due to us from many sources were promptly paid, we could replace our office without the slightest embarrassment.

We do not mean to make what is called a "poor mouth," because we have met with an accident. But men of sense will see, that this accident is to us quite a serious one; that it has occasioned loss and retarded business. We trust, therefore, that those who know themselves to be behind, will pay up. The terms of the *RECORD* require payment *in advance*; and this is now a requisition in all good newspaper establishments; because the sums alone are too small to pay the expense of collection. We must depend, therefore, on the *good faith* and *promptness* of our friends—qualities, which we trust they do, and always will possess. We desire to hold our readers as our friends, and have no doubt, they will continue to deserve our respect and esteem.

## TO OUR SUBSCRIBERS.

We owe to our subscribers an apology for the late appearance of the *Record* of this week. On Tuesday evening last, when the paper was nearly ready for the press, a little before eight o'clock, the upper story of our printing office was discovered to be in flames, and although the firemen were promptly on the ground, so rapid was the conflagration that our whole composing room, sheet room, and bindery were destroyed. Our type was melted, and our copy burned. The forms of the *Record* were melted on the imposing stones, and scarcely a line was left legible. We had, therefore, to commence afresh, and gather together material to get up our advertisements as well as reading matter. We are compelled to omit our table of stocks and our usual monetary information; but shall resume them again at an early day. Our subscribers will, therefore, bear with us for the present delay. We shall endeavor to have the coming number of the *Record* out on the publication day, or at the latest on the day following.

So complete was the destruction of everything combustible, that we have not even a file of the present volume left. We would, therefore, be greatly obliged to our subscribers who have more than one copy of Vol. 3 of the *Record*, if they would spare us some of the extra copies. Our reports, pamphlets, books of reference, and exchanges which we had treasured with care, are all either burned or so injured by water and otherwise, as to be of no service; we have, therefore, to request of the railroad companies, who have been kind enough to send us their reports hitherto, to furnish us with duplicates of the present and preceding reports as far as they are able.

Our books of account and valuable papers are all saved, thanks to one of Hall & Dodd's Patent Safes. They are not injured so much as by a drop of water, nor even discolored by smoke.

One word about ourselves, our loss is heavy, but we shall "pick our flint and try again," and we trust we shall meet with the hearty and earnest co-operation of all our subscribers, and friends throughout the country, in our attempt to increase the list of subscribers and the usefulness of the journal. And we can assure our friends that we know how to appreciate any aid and assistance they may render us.

☞ The Directors of the Coosa and Tennessee River Railroad, from Guntersville to Gadsden, have resolved to at once put the same under contract, and have already let out four miles. Work will commence in May. This road is intended to unite with the Selma Road at Gadsden, and so unite the Tennessee and Ama rivers by Railroad.—*Chat. Adver.*

## WESTERN RAILWAYS AND THEIR PROSPECTS.

We have been supposed, by some persons not familiar with statistics, to have exaggerated the favorable prospects to Western Railways. After a year of severe hardship to railway interests, and especially to their freights, so dependent on the harvests; after such a year, we calmly reiterate our opinions, and confidently believe, that we have not expressed too sanguine views of the large profits to be reaped hereafter, by all good roads, fairly conducted in the Valley of the Ohio.

There will, of course, be exceptions to all general rules; but, we expect all main lines (well managed), which are now constructed or constructing, to pay dividends of ten per cent.; and we believe the exceptions will be rare. Of course we expect the market value of stock, in such lines to appreciate largely, and ultimately to be above par. This, of course, cannot take place, till the roads are really finished, and till all floating debts are funded.

The reasons which confirm this opinion, are derived from the business of last year, apparently so discouraging. If railways in Ohio and Indiana (for example), have done a fair business in 1854, what will they not do in a year of full harvests, and prosperous business? We have before us the returns of traffic on several Western Railways for 1853 and 1854.

The following is a table of the number of *passengers* carried on some of them:

	1853.	1854.	Increase.
Little Miami Railroad.....	291,371..	323,422..	11 per cent.
Cin., Ham. & Dayton.....	236,829..	342,954..	46 " "
Ohio Central.....	60,341..	161,433..	160 " "
Cleveland & Pittsburg.....	218,080..	208,228..	decrease.
Terre Haute & Rich.....	88,821..	111,138..	26 per cent.
Eaton and Hamilton....	76,559..	91,982..	20 " "
6 Roads.....	972,000	1,238,157	27 " "

The Ohio Central was not finished in 1853. The others were. At least twenty-five per cent. increase has taken place in one year, and that an adverse one. We hazard nothing in saying that on all the Railways of Ohio and Indiana, the increase will amount to 20 per cent. per annum for many years to come. Suppose it average only 15 per cent. Then the increase of passengers on these six roads will be as follows:

In 1853.....	972,000
In 1854.....	1,238,157
In 1855.....	1,430,872
In 1856.....	1,645,492
In 1857.....	1,892,302
In 1858.....	2,175,147
In 1859.....	2,491,412
In 1860.....	2,865,122

In seven years the passenger traffic on these roads will be *trebled*.

Such roads as the Ohio Central will eventually carry more than half a million of passengers. The Little Miami and the Dayton will do the same.

It will be observed from the annual reports



of the above roads, that the receipts on the whole were as great in 1854 as in 1853; and yet, it is demonstrable that the agricultural produce of the country carried off was not *one-fourth* the last year, that it was the year before. Notwithstanding this, the following amounts of articles (not severely affected by the loss of crops), were carried on these six roads, viz: the *Cleveland and Pittsburg*, the *Ohio Central*, the *Little Miami*, the *Eaton and Hamilton*, the *Mansfield and Sandusky*, and the *Ohio and Pennsylvania*, (all Ohio Roads):

Cattle.....	24,613 number.
Hogs.....	238,456 "
Sheep.....	10,704 "
Horses.....	3,253 "
Butter.....	4,937,470 lbs.
Cheese.....	10,600,800 "
Wool.....	2,704,128 "
Coal.....	1,568,000 bushels.
Iron.....	41,568 tons.

When it is considered that these are not one-third the running roads of Ohio, and the above articles only a small portion of the agricultural and moving produce, some faint idea may be formed of what the freight traffic on railways in Ohio will be.

The fact is, that in 1854 (last year), not one-half the railways of Ohio were in running order, and a large number incomplete; while the surplus produce to be carried off was not one-fourth the usual amount. At the same moment, there was a sudden and almost universal pressure on the money market. Under these circumstances, it is in no degree surprising, that the price of railway shares descended to a very low point, and the weak roads were, for a time, suspended. It is well known that money dealers and capitalists are very timid in adversity, and, especially, rash in prosperity. They think a swelling wave will never subside, and an ebb tide never rise. They are habitually the creatures of circumstances.

Hence on the downfall of the money market, railways which embraced such an immense share of speculative stock, were thought to be utterly overset. The timid class, to which we allude, never once thought that these railways were an inevitable and essential machinery to the business of a great nation, and must be made, and would be profitable. But, actually ignored this great fact, and believed they could be puffed in or out of existence, by brokers and financiers. All this was arrant nonsense. The great railways of the West, made and to be made, are as necessary to its business, as its rivers and harbors. They are the irrigating channels of commerce, and must be made, to render the soil fertile, and carry off its produce.

The delusions and follies of last year are passing away, and a far greater confidence is felt in railways, than existed six months since. With the ice of winter has passed off much of the coldness of feeling. The European War, which has heretofore done us only mischief,

will very probably be beneficial in future. As confidence is lost in the stability of governments, and the lowering of property there, it is increased in those of our country; and all good American stocks already command a very reasonable price in the great London market.

We confidently expect, therefore, to see a revival of the railway interest, and its depreciated stocks rise to something like their real value. A speculative investment in them is not desirable; but it is hoped that they may not be again sacrificed from mere fear.

#### RAILROAD CAR FINDINGS.

A visit to the establishment of Messrs. Bridges & Bro., in New York, will convey a tolerable idea of the number and variety of articles in use in the manufacture of railroad cars, and the degree of system that modern manufacturing introduces into even comparatively new business. The establishment of Messrs. Bridges & Bro., contains every article that enters into the composition of a first class railroad car, from the smallest bolt to the mahogany plank, and patent ventilator to surmount the whole; but we shall confine our notice to a few articles only which struck us as new or valuable. Their patent *Cotton Felt* for seats and backs of car seats, is a useful article. It consists of layers of prepared cotton, separated by a thin layer of felt, and retains its elasticity. It is said to be as lasting as hair, and as pleasant for use.

*Enamelled Head Linings* for the tops of cars. These linings are manufactured by Messrs. Bridges & Bro. for lining cars, and contain no india rubber or gutta percha; and hence, are destitute of the odor of these substances. They are perfectly elastic, and after being carelessly grasped in the hand, show no signs of cracking or fracture of the enamel. They are made in every variety of pattern.

Their *Fountain Side Lamp* for lighting cars is an admirable thing both for economy in consumption, and for avoiding the dropping of oil.

*Richardson's Patent Oil Cup* for oiling machinery, is an air tight oil cup which can be screwed on anywhere where an oil cup can be placed, and from being air tight keeps the oil free from dust and wastage.

*Baldein & Cunningham's Patent Machine* for boring Locomotive and other cylinders. This is an admirable machine for the purpose of reboring cylinders in position. It saves all the trouble and expense of detaching the cylinder.

*Farley's Patent Apparatus* for adjusting the valves of locomotives. This machine enables the mechanic to set the valves of locomotives with little labor, and in a short time. It is made to operate on the drivers and turns them with ease.

#### The Steam Fire Engine—Public Confidence.

A singular change in the public opinion, as it regards fires, has taken place in consequence of the establishment of the new Fire Department, with its Steam Fire Engines. At the time of the fire in the Record Office, there was a concert in the Melodeon, the adjoining building. A thousand people were present. On the alarm of fire, they never started. On the contrary, the concert went on without noise or interruption to the end!

Ten years ago, this would have been impossible. A fire so near would have dispersed the whole audience, and filled the building with outcries. The whole building and its contents would have been destroyed, and probably the adjacent ones either consumed or seriously injured. As it was, however, in less than half an hour from the time the alarm was first given, the flames were entirely subdued. The fire was confined within the four walls and between the two floors in which it originated, and although the heat from the burning beams and tables was so intense as to lick everything that could be consumed, and to dart downwards and melt the type on the imposing stones; yet, there is but one place where it really burned through the floor. So complete was the confidence of the engineers in charge of the department, that hardly anything was allowed to be removed from the lower stories, and much loss and destruction was thus saved.

The change is a consequence of a *perfect confidence in the power of the present Fire Department*, to extinguish a fire immediately, without any danger to any persons, not in the building on fire. The effect of the Steam Fire Engine and the new Department, is almost a complete exemption from extensive fires.

A friend has left at our office several specimens of iron ore and stone coal, from points on the line of the Marietta and Cincinnati Railroad, which is now completed to a point 120 miles from this city. The mineral wealth of this country, penetrated by this road, has often been dilated on in our columns, and cannot fail to attract the attention of capitalists. By a trifling expense, the traveler from this city can go and return to the Iron and Coal region, in a couple of days on this road, and see one of the most picturesque and interesting parts of our State.

E. T. & GA. RAILROAD.—The London *Free Press* of May 8th says: "On the 7th inst., the first passenger train on the E. T. & Ga. Railroad ran through to Concord Depot, 14 miles above this place, to which point they will run regularly until the road is completed to Knoxville. The road from here to Concord is a continuation of what is generally conceded to be the best road in the South.



## ENGLISH CAPITAL IN AMERICAN RAILWAYS.

A large amount of English Capital is invested in American Railroads, and we are glad to learn, upon the best authority, that those who have invested the most liberally, are by no means disappointed or discouraged by the events of the last year. Some backsets are to be expected in all enterprises, and the railways of the U. States, have withstood the powerful pressure of last year, with more success, than could have been reasonably expected. Some unfinished lines have been arrested, more in consequence of the extravagance and mismanagement of their conductors, than of any want of merit in the schemes. Aside from this, nearly all the lines finished or unfinished, have done well. This fact is known to the English capitalists, and we are very glad to know that they have looked into this matter, closely and carefully.

Many of the English Bankers, we are almost ashamed to say, are better acquainted with the geography, statistics, and resources of this country, than the most intelligent American Merchants!

Within the last month, several English gentlemen of the highest respectability, have visited this city and the western country, for the purpose of looking into the manner in which their capital was invested. We find, on inquiry, that some four or five of these gentlemen represent interests in England, holding near thirty millions of dollars in our Western Bonds.

Some of these agents have been looking through the mineral regions of Ohio, (they having invested in the Marietta Railway,) especially in the Counties of Vinton and Athens. We learn that they feel great satisfaction in the evidence furnished by their own senses, to the vast resources of that region, and the probable future of the railway passing through it.

The more our country is seen by intelligent men, the more it will be valued. It is only those who have recklessly disregarded the rights of property in others, and diminished the value of the investments by enormous waste, who have any reason to dread the exposure of their condition, or an examination into their resources and prospects.

## MR. MASON NOT RESIGNED.

Persons accustomed to transact business with the Patent Office, who have read with regret, the rumored resignation of our present efficient Commissioner of Patents, will be reassured by the following copy of a letter placed in our hands by Mr. G. H. Knight.

PATENT OFFICE, WASH., May 7th, 1855.

SIR:—In reply to yours of the 1st inst., I have to inform you that I have not resigned the Office of Commissioner of Patents.

Very Respectfully yours,

C. MASON.

A. PEACOCKE, Esq., Cincinnati, O.

## EDITORIAL CORRESPONDENCE.

*The Country—The Cincinnati and Marietta Railroad—The Coal Mines—Good Prospects—English Capitalists—The North-Western Virginia Railroad—Baltimore Connections—"Old Ross"—Chillicothe—The New Court House—The "Minnie Rifle," from the field of Inkermann.*

CHILLICOTHE, May 12, 1855.

MY DEAR RECORD:—Wherever I am, it is my duty, and my pleasure to report myself to thee. Letters were invented, not only as Pope makes Eloisa say, "for some wretch's or some lover's aid;" but, specially for the benefit of editors, that they might write *private* letters for the public eye. Now, my dear Record, you must consider what I say, as intended for you only; but if the public should happen to read them; I cannot blame you, for I know you too well, to suppose you would betray my confidence. Well, then, I stole away on Friday, from the noisy streets of Cincinnati, to take a look at the fields, the railways, and the old town of Chillicothe. First, I looked at the country, and I have seen it in various directions, in the Vallies of Miami, Scioto, Paint Creek, and the great plain. Everything looks green and beautiful; but the soil is altogether too dry. The springs and the creeks are low, and there is almost a draught now. Neither I nor any one can predict the result of crops; but I have no faith in a very large wheat crop, so far as Ohio is concerned. There is not as much planted as usual, and on the upland levels, it is quite thin. The crops of this year will depend on the rain which falls between this and the first of July.

In coming here, you know, I pass over the Little Miami, the Hillsborough, and the Marietta Railways. The L. Miami is the model railway in the west, and of that I say nothing, except that their new ladies' car, (whose invention I know not,) supplies the great desideratum, a car without dust and without heat. It is the very perfection of car comfort. At Loveland (now a strong little village), we took the cars of the Hillsborough road, which contrast too strongly with those of the Little Miami—being old and dirty. At Blanchester we took the Marietta road. This road is very well constructed, and laid with the compound Winslow rail, which I regard, as decidedly the best. It runs very smooth. The Cincinnati and Marietta line is an expensive one, in consequence of making a very nearly straight line, and, therefore, having many cuts and fills. But, you know, this is a decided advantage in the end. The only objection is, that in the early stages of a railway, it makes an inconvenient draft on the money-lenders. In that respect, however, this work has had the good fortune to secure the confidence of some of the largest capitalists in England, who have furnished and will furnish money to

carry it on. Though the construction is expensive, the company have nearly made it up, in having paid comparatively little in discounts upon money. In the end, I believe, the Marietta Railway will be found to have been economically made. I am glad to learn, that the Domestic Loan of \$300,000 is taken, and that the early completion of the work to Marietta is now placed beyond a doubt.

It is thought this will be finished to Athens in October, which is a matter of great importance to Cincinnati.

The best coal mines which can be opened, at equal distance from Cincinnati, are those of Raccoon Creek, about fifteen miles this side of Athens. It is the Nelsonville Seam, of which immense quantities are now consumed in the interior of the State. It is sold here, on the canal, at seven cents per boat load, and may easily be retailed in Cincinnati at 12 cents. The road will reach this seam by September; and coal companies are already formed to operate the mines. This, I regard, as a good prospect for Cincinnati, and decidedly the best one I know of.

Mr. Ferguson, a member of an English Banking house of large capital, and deeply interested in this railway, is now here, and has accompanied Mr. Wilson, President, over the whole line. This is what I wish the European capitalists would do, and what, I am sure, would be beneficial to our credit. They would find that we have not exaggerated the resources of the country, nor the security of capital invested in railway bonds. Some ill planned, or mismanaged roads there are; but they are the exceptions, not the rule.

You are aware that the North-Western Railroad is constructing by the Baltimore and Ohio Company, and is far advanced towards completion. This work will connect the Baltimore Railroad with the Cincinnati and Marietta, through Parkersburg; and any Atlantic City. From Cincinnati to Baltimore, will be as follows:

Cincinnati to Parkersburg.....	180 miles.
Parkersburg to Baltimore.....	360 "

Aggregate..... 540 "

This will give a great advantage to the Baltimore route, and already Baltimore is making a closer competition with her northern rivals, than they are at all aware of. While the exports of New York are falling off, those of Baltimore are increasing. This region, hereabouts, is familiarly known as "Old Ross." It is the largest county in the State, and probably has the largest body of the richest, first-rate lands. In good seasons, this county has produced *three millions of bushels of corn*; more than some entire states produce. Of this beautiful section, Chillicothe is the chief town, as it was the "ancient metropolis." Here the fathers of the State assembled in council, and here was formed the first State Constitution—a much better one (by the way)



than the patch work affair we have now. The old Court House, (which was also the old State House), is just thrown down, by Genl. Rowe, one of the County Commissioners, who thinks it will be built for \$75,000. It will be a handsome building, with ample accommodations, built of the beautiful sandstone, of which we use so much in Cincinnati. I have no doubt, that with such county officers as Ross County has, Cincinnati might have had a better Court House, than the monstrosity now building for one-fourth its cost. But, all dancers should pay the fiddler, and Hamilton County pays for hers pretty well.

I am indebted to General Rowe's courtesy for the sight of a real curiosity. It is a Minnie Rifle, taken from the field of Inkermann; and a short sword, taken from that of Balaklava. They were used their by the Russians, and sent here by our worthy Secretary at Constantinople, John Brown, Esq. They show marks of service. The Minnie Rifle is a terrible weapon. Owing to the peculiarity of its construction, it will carry a ball true for 90 yards! It is, therefore, almost as effective as artillery, and no heavier than the common musket. What next? Can we not get up a chloroform battery? Or, make an electric mine?

Fare thee well, my dear *Record*, and take good care of yourself. Yours,

E. D. M.

#### Editorial Correspondence.

PATTERSON, N. J., May 10, 1855.

After traveling for two days through a zone of successive sunshine, rain and snow, I have sunshine again at this little town in the interior of New Jersey. We left Cincinnati on a bright May morning, and with a balmy summer air. At Columbus we began to strike the outer limits of the storm; a few miles this side of Cleveland we were in the midst of pattering rain, and near the State line we ran into the snow, which increased, till, at Buffalo, it was four or five inches deep. This staid with us as far as Syracuse, and rain again from there to New York. The Cleveland and Columbus Company have a force engaged in ballasting their track. They have purchased an excellent gravel bed on the line of the Ohio and Indiana Railroad, and are busy now ballasting either way with the gravel thus obtained. The road bed is to be raised six inches, and in place of the broad *four inch plank* used in ties, they are substituting heavy cross ties, thus making a solid and substantial track. They have thirty miles of double track laid with the continuous rail.

At Cleveland my friend Mr. B. picked up a French lady, with a puppy peeping from beneath her shawl, and accompanied with a bandbox, basket and budget, all exceedingly

interesting articles. B., of course, was delighted with the neivete of the lady, and from the attention he received in consequence of his company, reminded me of my two friends Judges P—— and R——, who visited Europe a few years ago, not quite together, but meeting each other frequently, Judge R—— had retired from public life in consequence of health, etc., and had never attained a high position. On the contrary, Judge P—— occupied a prominent place on the bench. P—— traveled alone, while R—— took his daughter. On meeting at Paris and comparing notes of their travels in England, P—— complained somewhat of neglect, while R—— on the contrary, was perfectly satisfied that the English were the most polite and attentive people in the world, and consoled his friend by telling him that the truth of the matter was, that he (R——) was traveling as a gentleman should travel, with his family, while he (P——) was traveling as a loafer, with no one to give him respectability or social position. Hence the difference.

On leaving Cleveland, this was very much the case with my friend B—— and myself. He traveled as a gentleman with a lady and a puppy, and I alone as a —— no matter, some words are not easily said. At the break at the burnt bridge, B——, with the lady and puppy, rode round the gap, and myself, with a good many other unfortunates, tramped half a mile through snow and mud. However, we had no puppies with us.

The New York Central Railroad is in fine condition and doing a magnificent business. We had *seven* double cars filled to their utmost capacity. This is the great passenger route, as will be seen from the following figures taken from the Report of the State engineer for 1854:

#### RECEIPTS FROM PASSENGERS.

N. Y. Central.....	\$2,677,316 85.....	\$3,151,513 89
New York and Erie.....	1,674,762 33.....	1,779,721 56
Increase on the Central, \$474,197 04, or nearly 17½ per cent.		

Increase on the Erie, \$104,950 23, or 6¼ per cent.

The increase in passage receipts on the Central is very large, and owing, no doubt, to the fact that its connecting roads branch east and west in every direction. Boston, Montreal, and New York are easily reached from its eastern terminus; and from its western, every road through Canada or the U. States.

On the steamboat on the Hudson, I met the daughter of General Agüero, whose name is remembered and revered by many as one of the martyrs of the unfortunate Lopez expedition. His heroic lady, on her husband's death, vowed she would never look again upon the sky or soil of Cuba, till "La belle Isle" was free, and she has not. True to her vow, she had her house darkened, every window barricaded, and neither the light of heaven nor the view from the pleasant fields

was ever admitted into her mansion during the eighteen months of her stay. When she embarked, she muffled her head, and was carried to the carriage, and thence to the vessel, and did not see the sky till she saw it free beyond the sight of Cuba. Her daughter is a bright black eyed brunnette, a mere child, but thus early imbued with the deepest hatred for the Spanish rule.

To-day, in Patterson, we have sunshine, the first glimpse since I left Cincinnati. Patterson is a thriving little town on the Passaic river at the Falls. The Erie railroad passes through it, thus bringing it within 17 miles of New York, but it requires a full hour to perform the trip. It contained 17,615 last year, according to a city census made by authority of the Council. Of the men of Patterson, 863 are machinists, 262 blacksmiths, 308 carpenters and pattern makers, 118 moulders, and 1516 laborers. The manufactures consist of cotton, silk and flax goods, machinery of various kinds, locomotives, cotton machinery, cards, etc. The amount of capital invested in the manufactures is \$4,976,550. These factories employ over 5,000 hands, and pay nearly one and a half million dollars yearly in wages. They have but one bank for commercial purposes, the Passaic Company Bank, with a capital of \$8,000, the Savings' Bank has deposits to the amount of about \$37,000.

Patterson owes its beauty and importance to the Falls on the Passaic river, which here leaps down a narrow chasm in the rock, almost turning back on its course, and dashing its foaming spray on the opposite cliff. They point out here a secluded spot where Washington and La Fayette conversed over the fortunes of our country in the dark days of its history. The falls are seventy-five feet high, and in ordinary seasons afford abundance of power for even a large increase of machinery. The water is used three times, falling each time twenty-two and a half feet, leaving seven and a half feet for descent in the water ways canal, etc. The Company rent the water by the square foot, the rates for new customers are \$6 00 a year for a permanent stream of a square foot in section, and \$5 00 a year for the same sized stream subject to the precedence of the older leases in very dry weather.

I visited this morning the establishment of Messrs. Danforth, Coke & Co., Locomotive Builders. Last year they turned out thirty engines. They have now, under process of construction and nearly completed, a switch Engine, boiler and tender, all upon the same frame and trucks. It is a strong, but not a handsome machine. It is designed for making up trains, and is well adapted for the purpose.

As a point for manufacture of various kinds, Patterson enjoys the advantage of



close proximity to New York, and will probably continue to grow till its fine water is all used to the best advantage. There is a splendid speculation on foot, got up by parties in New York. It is to bridge the Passaic just above the falls with an arch of a single span of 252 feet for the purpose of bringing into market some land which they own on the opposite side of the river, and making it available for purposes of residence. They have already made two unsuccessful attempts at bridging, but are determined to succeed. At the trial of the last bridge, there are said to have been nearly 3,000 persons present to witness the trial of the bridge, and attend the sale of lots; there were only 30 or 40 on the bridge at the time it fell. One of Moseley's Tubular Arches would span it magnificently, and would stand a test of not twenty tons only, but two hundred.

## Railroads.

### SUSQUEHANNA BRIDGE ON THE PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD.

The surveys for this bridge were made during the summer and autumn of 1853. On May 31, 1854, the contracts for the masonry, foundations and grading for the bridge and its approaches were let to Messrs. Goss, Cook & Co., and to Hatheway, Leach, and Goss.

"By the final location, the straight track from the Cecil side will be continued across the river; striking the westerly side about one quarter of a mile above the present depot; and passing, by an easy curve, through the town of Havre de Grace, in which only two travelled streets are crossed. Less than two-thirds of a mile of new roads are required, by this route, to reach the bridge on the west, and none on the east or Cecil side of the river, although the track there will have to be considerably raised. In obtaining the right of way for the new road; a spacious depot ground has been secured, which will afford ample accommodations, not only for the business of Havre de Grace, but also for that expected from the Tide Water Canal. A very favorable connection with the Canal basin, for transferring freight, may be made from this point, by a branch of easy construction, and but seven eighths of a mile in length.

"The commencement of active operations having been postponed till the middle of August; and the hot season having proved more sickly this fall, than has been known for many previous years; little has been done towards the construction of the bridge, compared with what had been anticipated.

"The quarry purchased at Heckartown (last year), was opened and worked during the spring of 1854, by men employed by the Rail-

road Company, and was subsequently transferred to the contractors, who have obtained there a large amount of rough stone. A quarry was also opened by the contractors at Conowingo, which is still in operation. But they have more recently obtained access to several of the best quarries at Port Deposit, the stone from which is of excellent size and quality. About one hundred and fifty men are now at work at this latter point, and a large amount of dressed stone will be ready for laying by the time the state of the river permits the masonry to be commenced in the spring.

"The pile foundation of one of the piers, is ready for the masonry; the piles driven and sawed off. One of the foundations on rock is also partly prepared. The framing of the timber platforms for lowering masonry is going on, and a large part of the timber designed for that purpose is now on hand.

The piles used, thus far, have been procured from timber lots of which the woodleave had been purchased by the Railroad Company, and a large part of those still to be driven, can be had from the same source.

The laying of a portion of the masonry in deep water was not included in the proposals received, or in the contract closed for the other masonry, but was undertaken by the company. Four piers belong to this class, the foundations of which, when prepared, will be more than twenty feet below low water, this being the limit of the contract. To assist in building these, as well as for examining the foundations generally, a large diving-bell, with the attendant machinery, has been constructed, after the designs and under the supervision of H. B. Sears, Esq. Either by this or by more ordinary means, as may hereafter prove expedient, it is believed that the piers in question can be completed so as not to delay the other portions of the work.

The bridge will consist of thirteen spans, of 200 feet each in the clear, and 8 spans of 65 feet in the clear, making the total length about 3250 feet. It will be so constructed (such being the requirement of the laws) as to serve for ordinary travel as well as for railroad purposes, one side being occupied by the highway, the other by the track or tracks.

The draw, of the vicinity of which an elaborate survey and soundings have been made, will be located according to the directions of the law; and, it is hoped, to the satisfaction of all parties interested. It will have two openings of 65 feet each.

The superstructure of the bridge, which is not yet under contract, will doubtless be planned and let at an early day.

An estimate of the quantities of work, and of the cost of the Susquehanna Bridge, is subjoined. In this, some of the larger items are calculated from contract prices, and from agreements actually made. Those which are

not, are believed to be ample to meet any contingency, and probably exceed, on the whole, the outlay that will actually be required.

An iron superstructure, however, should such be adopted, would probably exceed the cost here estimated,—which is for a wooden bridge, with three trusses and with arch beams.

It should be remarked also, in reference to this estimate, that 15 per cent. of the amount covered by the contract, is payable in improvement bonds at par.

#### ESTIMATE OF COST—SUSQUEHANNA BRIDGE.

RIGHT OF WAY, including expenses procuring charter, and new depot ground in Havre de Grace. \$50,000 00	
FOUNDATIONS:—	
Piles, number driven and cut off, 1516 at \$5 00.....	\$ 7,580 00
Piles, lineal feet, 70,570, at 12 cts. 8,468 40	
Timber in foundations, 31,275 cub. ft., at 40 cts.....	12,510 00
Dam and excavation for abutment, and Pier No. 21.....	1,000 00
Concrete used in levelling foundations, 1420 yds., at \$9 00...	12,780 00
Riprap, 5900 perches, at \$2 25...	13,275 00
One diving-bell and apparatus, and expenses on same, exclusive of those charged to masonry.....	15,000 00
Contingencies (15 per cent. on \$70,613 40).....	10,592 00
	<u>81,205 40</u>
	\$131,205 40

MASONRY:—	
1st class, ab. water, 2610 perches, at \$10 00.....	26,100 00
2d and 3d ab. water, 5730 perches, at \$9 00.....	51,570 00
1st class, under water, 1920 perches, at \$11 50.....	20,930 00
2d and 3d, under water, 2820 perches, at \$10 50.....	29,610 00
1st class, laid by diving bell, 3850 perches, materials furnished, at \$7 50.....	\$28,875 00
2 bells and machinery, deduct. value when work is completed, 6,100 00	
Cost of manning and working (3 bells six months).....	15,810 00
Contingencies (20 per cent. on \$21,910 00).....	4,382 00
Patent fees.....	10,000 00
	<u>65,167 00</u>
Hammered face of walls, 13,000 sq. ft., at 25 cts.....	3,250 00
Contingencies (five per cent. on \$131,460 00).....	6,573 00
	<u>203,200 00</u>

SUPERSTRUCTURE:—	
2839 lineal feet (long spans and draws), at \$50 00.....	141,950 00
419 lineal feet (short spans), at \$28 00.....	11,732 00
	<u>153,682 00</u>

GRADING:—	
60,000 yards earth, at 19½ cts....	11,700 00
TRACK:—	
Two-thirds of a mile, new, at \$9500 00.....	6,333 33
1½ miles, including turnouts, moved and relaid, at \$600 00.....	900 00
	<u>7,233 33</u>
Engineering, salaries, and incidental expenses.....	25,000 00

Total estimated cost.....\$532,620 73

HILLSBORO AND CINCINNATI RAILROAD.—An Election of Directors for the Hillsboro and Cincinnati Railroad Co., was held in the Company's Office, Cincinnati, May 8, 1855: *Directors Elected*—Samuel B. Keyt, D. J. Fallis, W. S. Nye, Washington McLean, Vachel Worthington, Alphonso Taft, Noah S. Wilson.

May 9.—Board organized and elected S. B. Keyt, President; D. J. Fallis, Secretary and Treasurer; Alphonso Taft, Solicitor; W. R. Arthur, Superintendent.



### Transportation by Wagons and Railroads.

Although it is only a few years since the introduction and successful employment of Railroads as a means of transporting freight in this region of country, yet our people are already forgetting the hardships and expense of their former tedious modes of transportation. To all such we commend the careful and attentive perusal of the following article from the *Houston Telegraph*.

The editor of the *Panoplist* says, if he was called upon to say what is the peculiar institution of Houston, he should say, it is "ox-teams and teamsters." He spoke the truth, ox-teams and teamsters have been the pride and glory of this city, for many long years. Whatever else might have been dispensed with, as instruments of its prosperity, they were indispensable, they occupy the intermediate ground between the merchant and the planter, without which, both commerce and planting are at a stand. They hold a position in this great and growing State, second to no other interest, and stand in the same relation to the general prosperity that railroads, canals and steamboats do in New York and Pennsylvania. Not less than 4000 bales of cotton have arrived in this city in the last two weeks, on ox-wagons, giving employment to 4,690 yoke of oxen, and 670 wagons and drivers. Besides the above there have been at least 200 arrivals of wagons freighted with other produce. But let us calculate the amount of capital and industry employed in hauling cotton alone. Last year, with a short crop, the receipts at this point were, in round numbers, 38,000 bales. The loads range from 3 to 10 bales according to the roads, but say an average of six bales, which is probably over the mark, there were 6,333 trips required for last year's business. Many wagons make four and six trips per annum, and many others but one, two or three. At an average of four trips; there were 1,566 wagons giving employment to an army of teamsters—twice the number of men engaged in whipping Mexico at San Jacinto. Each of these wagons requires an average of about 7 yoke of cattle, which, with regular teamsters, are changed for fresh cattle several times a year. Wagoners tell us it requires a reserve team, as they are almost exclusively fed by grazing along the road. At that rate it required in round numbers 25,000 yoke of oxen for the years business. Oxen are worth an average of \$50 a yoke, wagons complete, \$150 each. The capital engaged was as follows:

25,000 yoke of oxen at \$50	1,250,000
1,566 wagons at 150	234,900

Total, \$1,484,900

The expenses of 6,333 trips will average \$40, and the gross amount of freight money about \$100, giving the result of the business as follows:

6,333 trips at \$100 freight money	\$633,300
Deduct average expenses of 6,333 trips at \$40	
Nett Freight.	\$380,010.

The cotton transport of last year was fully 40 per cent less than the whole transport engaged in the trade. In fact the up freights from this point, required much more than 40 per cent greater transportation than the cotton, to say nothing of the corn, sugar and molasses, hides, wool, peltries, &c., brought to this market.

There must be considerably upwards of two millions of capital engaged in transportation to and from this city alone, two thirds of which, would be useless if we had about 200 miles of railway; or, in other words, here are \$1,300,000, that might be invested in railroads to great advantage. We can have no sort of transportation without capital, and delay investments in railways as we may, a similar investment must be made in wagons and oxen, which wear out in about three or four years—five at most, while railways last for 20; the repairs and new equipments in 20 years, are only equal to the original investment. Five years hence, instead of 2,000 wagons we will require 8,000, at a cost of about \$5,000,000, a capital to be constantly increased to accommodate the growth of business. At that rate one hundred millions will not supply the capital, we should engage in ox-team transportation in 20 years, to do the business that \$5,000,000 will do, when invested in railways. These figures are approximate estimates only, but sufficiently near the mark to show the vast sums we are annually throwing away by the present mode of transportation.

We hope the day is at hand, when railroads will be one of the "peculiar institutions" of this city, and of this State, when the ox shall give way to the iron horse which travels with 20 times the speed of the ox, and a thousand times his burthen.

### B. C. & N. Y. Railroad Meeting at Le Roy.

A large meeting of the stockholders of the Buffalo, Corning & New York Railroad Company was held in this place to-day, (the 9th inst.) pursuant to the adjournment of the late meeting at Corning. The object of the meeting was to devise ways and means to complete the road to Buffalo as soon as possible.

The meeting was organized, and Dr. A. SILL of Livonia, appointed Chairman.

A few interesting statistics of the road were then submitted by the Secretary, F. Davis, Jr., Esqr., from which it appeared that the average earnings of the road for the last six months, under the most unfavorable circumstances, were over \$5,000 per month, independent of the earnings of the Genesee Valley Road. From this statement it was very naturally concluded that when completed to Buffalo, the road would pay a fair dividend on the money invested in it.

A number of propositions were then submitted to the meeting by various gentlemen, upon which arose a very animated discussion.

A motion to delay all proceedings for the completion of the road until next fall, under the supposition that many of the stockholders would then be better able to subscribe for the bonds which it was contemplated the company would issue, was laid on the table by an almost unanimous vote. Other motions were made and lost and considerable feeling and excitement were at one time exhibited. The meeting, however, as a general thing, exhibited a great deal of candor and discretion.

It was finally decided, on motion of Mr. Merrill, of Avon, to raise a million dollars on income bond, to be first offered to those of the stockholders who preferred their stocks, at the rate of fifty cents on the dollar, in amount equal to their several amounts of stocks. At the expiration of thirty days, the residue, if any, to be sold at not less than the same rate to any persons desiring to purchase, the subscriptions not to be valid unless six hundred thousand dollar of the bonds shall be

taken. The bonds to be made payable in 1865, and drawing semi-annual interest, subscriptions for which are to be made in notes without interest, payable one half the first of next February.

It was also moved and carried, that the Rev. Mr. McLaren of Caledonia, be appointed Trustee of the Company, to hold the said notes to be given for the income bonds, to be used and negotiated by him for the purpose of immediately completing and equipping the road to Buffalo.

This plan met with universal approval, and subscriptions for bonds were forthwith obtained to the amount of between two and three hundred thousand dollars. Considerable enthusiasm existed, and there is now but little doubt of the speedy accomplishment of the object for which the meeting convened.

### RAILROAD INTELLIGENCE.

We extract the following items of general intelligence, to show the present activity of Railway Companies.

**ALABAMA AND FLORIDA RAILROAD CO.**—We learn says the *Montgomery Journal* of the 10th inst., that the grading for about fifty miles of this road has been let to contract and that the work is rapidly progressing. A large number of hands are daily at work upon this road.

**PORT HURON AND LAKE MICHIGAN R. R.**—The Lapeer (Mich.) *Democrat* states that a large amount of money will be expended on this work during the present year, and that it will certainly be completed to Lake Michigan in two years.

☞ The Peru and Indianapolis Railroad is doing a larger business, both freight and passenger, than any other road running to Indianapolis, all things considered; and yet, it is not able to do all the business offered. We understand that the iron for the five miles of road from Noblesville to Indianapolis has arrived, and that the laying it down will commence immediately.—*Peru Sentinel*.

**RAILROADS TO ROCK ISLAND.**—A correspondent of the *Chicago Tribune* says the directors of the Warsaw and Rockford Railroad have determined upon building the eight or nine miles of road from Port Byron to the Junction with the Rock Island Road immediately, and that portion south of the city as soon as possible. The writer also speaks of the meeting, at Geneseo, of those interested in the Peoria and Rock Island road which was chartered last winter. The two roads will probably join hands in building from Rock Island to Camden, about five miles, which will give a start to the Peoria road.

The Rock Island road scarcely feel the opening of the Burlington road, such has been the demand for railroad facilities. About three hundred passengers are brought in on the Rock Island cars every day.—*D. Press*.

**VICKSBURG, SHREVEPORT AND TEXAS RAILROAD.**—The entire work on the Vicksburg, Shreveport and Texas Railroad, has been put under contract. Messrs. W. F. Fannin & Co., a well known and responsible Georgia firm, are the contractors. They are to finish the work by the first day of January, 1861. The manner of paying for the building of the road is most satisfactory—the contractors agreeing to receive therefor 2-10th in Louisi-



ana State bonds, 3-10ths in cash, or in the event of the company's not being able to pay cash, then in bonds of the company, bearing 8 per cent. interest, and 5-10ths in stock in the road. The bonds, cash, and stock, to be handed over to them as the work is completed. It is contemplated, that under this arrangement, the road will be finished to Richmond, and the cars running by the 1st of January next, and to Bayou Macon in six months thereafter. Dr. C. G. Young, of Caddo Parish, Louisiana, has been elected President of the road in place of Mr. Coleman, who resigned several weeks ago.—*Mem. Eagle.*

**JOLIET AND CHICAGO RAILROAD.**—At the last session of the Legislature, a law was passed authorizing the organization of the Joliet and Chicago Railroad Company, and the construction of a railroad from Joliet via Lockport to Chicago. This road is to be an extension of the Chicago, Alton, and St. Louis Railroad, whose northern termination is now at Joliet, but whose interests, as well as the interests of the country accommodated by it, and the interests of Chicago, imperatively demand its extension to this city. This object it is proposed to accomplish under the charter obtained last winter. The extension is to be constructed by the Joliet and Chicago Railroad Company, the Chicago, Alton & St. Louis Company agreeing, as we are informed, to lease this road perpetually as soon as it is completed, and to pay such a rent as shall guarantee the holders of stock in the former road eight per cent. per annum upon their investment.

**KEOKUK AND MUSCATINE RAILROAD.**—The above named line of contemplated railroad, meets with great favors from the papers of the towns through which it is to pass. The *Muscatine Journal*, says that St. Louis looks northward with a wishful eye at the numberless tons of freight moving eastward that floated down the Mississippi into her lap, and that the people of that city has accordingly determined to withdraw their attention for the present, from the North Missouri Railroad, and enter earnestly upon the project of constructing a Road to Keokuk. That paper further understands that the people of Keokuk, are almost unanimous in considering the valley road to Fort Des Moines, as of secondary importance, to the Muscatine and Keokuk road, as will be shown by their actions. It is also said to be the intention to have the road graded and ready for the cars, as far as Muscatine—twelve miles—by the coming summer.

✂ The Maumee Bridge, built for the Junction Railroad, the *Maumee Times* says is at last completed. Its length of span is 150 feet, total length 780 feet. Its height from the water to the summit on which the track is to be laid, is 55 feet. It is built on the Howe truss plan, and contains 315,000 feet of pine lumber, board measure, 40 tons of wrought iron and 30 tons of cast iron. E. T. Weeks, Esq., master builder. The bridge when wholly completed, will be some 1500 feet in length—a grand and durable structure.—*Com. Rep., Tol.*

**MOBILE & OHIO RAILROAD.**—On Saturday evening of last week, and on Monday and Wednesday evenings of this week, meetings have been held at the Court House in this city, for the purpose of raising the amount of

money, by subscriptions to the Income Bonds, required of Lowndes county. For some days past, the conduct of this business has presented the character of a protracted religious meeting. We are truly gratified, in being able to announce the fact, that we have pretty near raised the \$100,000 called for and indisputably necessary to be obtained in this county. Ten to fifteen thousand dollars more, will complete the amount, and it is confidently expected that the agents in the country, will be ready to report the final supplies of the subscriptions by the end of the present month.

This done, and we may confidently expect to see the Mobile and Ohio railroad finished to this city, two hundred and thirty miles distant from Mobile, by the first of February next.—*Col. Miss. Eagle.*

**OHIO AND INDIANA RAILROAD.**—We are gratified to learn that Judge Hanna, the President of the Company, during his recent visit to New York, succeeded in effecting a sale of bonds to an amount equal to the pressing outstanding liabilities of this road, which will be forthwith liquidated, and the company relieved from the pressure which has hitherto operated so disadvantageously.

The roads continues to do a good business. Last month the receipts amounted to \$26,000, for this month they will probably reach \$30,000.—*F. W. Sentinel.*

#### FORT WAYNE AND CHICAGO RAILROAD.

A week or two ago we announced that this work would be completed to Columbia by November next. We are now enabled to state that the work is nearly ready for the iron to Columbia, and a large force of hands will immediately be placed on the unfinished sections as far West as Plymouth, sixty-five miles from Fort Wayne. The work will be finished to that place by November next, and will there connect with the Laporte and Peru Railroad, giving us a good temporary connection with Chicago. The iron for ninety miles is purchased and paid for, and will reach here as soon as navigation opens. It is expected to commence laying the track about the 15th of June. Every exertion will be made to push forward the work, and it is confidently believed that by November next we shall be placed in connection with Chicago. The efforts of the company will then be directed to the completion of the remainder of the line, from Plymouth to Chicago, which it is expected may be accomplished by July of next year.

This road, with its eastern connection, the Ohio and Indiana Railroad, will form the best and shortest eastern outlet for the immense travel and trade of Chicago, and must prove a very profitable stock.—*F. W. Sentinel.*

#### ALABAMA AND TENNESSEE RIVER R. R.

From a report of the earnings of this road, from the 1st of July, 1854, to the 1st of April inst., made out by Mr. Sullivan, the Superintendent, for the inspection of the Board of Directors, who meet in this city on tomorrow, we are permitted to take the following statement which shows the gross receipts:

From Freight.....	\$35,685 84
Passengers.....	13,824 90
U. S. Mail.....	1,800 00
	\$51,210 74
Expenses.....	23,283 74
	\$28,027 00

We do hope, that the above statement, will influence the Directors, Stockholders, and friends of the road generally, to push forward the work, and get the cars across the Coosa, as soon as possible.—*Salem Reporter.*

#### GALENA AND CHICAGO UNION R. R.

The Earnings of the Galena and Chicago Union Railroad Company for the month of April, 1855, were:

Freight.....	\$86,963 55
Passengers.....	81,955 59
Mail, etc.....	1,634 64
Total.....	\$170,553 78

#### TERRE HAUTE AND RICHMOND R. R.

The receipts of the Terre Haute and Richmond Railroad for the month of April, 1855, were.....\$19,278 08  
Yours Respectfully,  
CHAS. WOODS, Secretary.

#### OHIO AND PENNSYLVANIA R. R.

PITTSBURGH, May 4th, 1855.  
Earnings in April, 1855.....\$103,648 51  
" in April, 1854.....80,013 85  
Increase (29 per cent.).....\$ 23,634 66  
In first four months of 1855.....341,308 33  
In first four months of 1854.....283,311 45  
Increase (20 per cent.).....\$ 58,995 88  
If the earnings in the remainder of the year should show a corresponding increase, the estimate of the Superintendent will be considerably exceeded.  
S. W. ROBERTS, Supt.

#### MICHIGAN CENTRAL RAILROAD.

The Receipts of the Michigan Central Railroad Company for April, 1855, were:

Passengers.	Freight.	Miscellaneous.	Total.	
1855....	\$132,538 98..	\$95,733 63..	\$7,207 21..	\$235,434 79
1854....	84,004 57..	57,620 25..	3,631 25..	145,156 03
Increase	\$48,534 33..	\$38,113 43..	\$3,665 96..	\$90,323 75

#### Terre Haute and Richmond Railroad.

The Earnings of the Terre Haute and Richmond Railroad for the month of April, 1855, are:

APRIL, 1855.			
Passengers.....	Freight.....	Miscellaneous.....	Total.....
			\$10,774 24
			7,510 21
			609 23
			385 30
			\$19,278 08

#### APRIL, 1854.

Passengers.....	Freight.....	Miscellaneous.....	Total.....
			\$9,647 23
			7,057 41
			608 33
			383 00
			\$17,695 97
Increase .....			1,582 11

The small increase of freight is owing to the failure of the crops of last season.

#### N. Y. CENTRAL RAILROAD.

The following is a comparative statement of receipts from passengers and freight, during the month of March, 1854 and 1855:

	Passengers.	Freight.	Total.	Increase.
1855....	\$218,362 17..	\$302,309 37..	\$520,671 54	
1854....	205,044 62..	224,233 13..	429,276 77	
	\$13,317 55	\$78,076 22	\$91,393 77	\$101,393 27

Toledo Blade.

#### WESTERN AND ATLANTIC RAILROAD.

ATLANTA, GA., April 23d, 1855.

SIR:—I have the honor to present the Report of the Road's business for the first quarter of 1855:

	Earnings.	Working Ex's.	Other Ez.
January.....	\$51,959 34....	\$25,515 20....	\$15,192 36
February.....	40,051 04....	18,132 23....	11,926 23
March.....	63,845 03....	27,767 45....	22,835 64
	\$155,855 41....	\$71,414 88....	\$48,954 23
Same period in 1854.....	170,355 04....	63,297 26....	63,741 95
Difference.....	\$15,499 63....	\$8,117 62....	\$14,787 72

Respectfully submitted,  
JAMES F. COOPER, Supt.  
His Excellency, H. V. JOHNSON,  
Governor of Georgia, Milledgeville, Ga.  
*Federal Union.*



## Miscellaneous and Mechanical.

### PATENTS IN EUROPE.

[We published in our last issue, but one, an extract from the *Inventor's Guide*, by J. G. Moore, we complete to-day the extract so far as relating to the various European states, and reserve for the next issue our own comments.]

**PRUSSIA.**—The term of a patent in Prussia is at the option of the government, and not the inventor; but the usual time for which they are granted is eight years. The cost is nominal—rarely exceeding, all fees included, five dollars. One set of drawings, and one specification in German, are demanded, and the patent must issue in the name of a resident, whom the agent will provide, if requested. It is expedient that the patent shall go into operation within six months thereafter; but the government is lenient in enforcing the rule.

**RUSSIA.**—The Russian government grants patents of invention for ten years, but those of importation for periods ranging from one to six years, at the option of the applicant. Prolongations are not usually granted. The charges are:—for one year, \$50; two years, \$100; three years, \$145; four years, \$190; and so on in proportion to these rates. Drawings and specifications are required. No patent of addition is ever issued; so that additional improvements must be covered by additional patents. The government reserves the right to grant or refuse patents, and when granted, they must be put in operation within six months thereafter.

**BAVARIA.**—Bavaria allows patents from two to fifteen years, and prolongations at pleasure. The charges are not fixed by schedule, but relate to the character or nature of the invention. The average charge is about eight dollars per annum. Drawings and a specification are necessary. Patents of improvement are not granted on the original; but new ones must be obtained, subject to the original fees. Two years is the period within which such patents shall go into operation; and such instruments are granted, whether the applicant be a resident or not.

**SAXONY.**—The government of Saxony exercises its own discretion in limiting the term for which a patent shall issue. The ordinary papers are required to accompany the application, besides a statement setting forth whether the invention has been patented in any other country; and if so, the date of the patent, and the number of years it has to run. Patents of addition are not granted; but improvements on the original may be secured. The invention shall go into operation within one year of the date of the patent. The Patent Office fees average \$5 or \$50 according to circumstances.

**WURTEMBERG.**—The government does not grant patents of importation for a longer term than ten years, but the legislature may. Patents may be obtained for any period less than ten years, and subsequently prolonged, provided the application therefor is made six months before the expiration of the original. The government charges are \$12 50 or \$50 00, according to the nature of the invention, and its apparent utility; but payment is made in annual instalments, the first being required at the time of making application. The accompanying documents are simply a

description and a tracing. Patents of addition are granted without additional charges; and patents of either character are issued, without respect to residence or place of birth. The invention must go into operation within two years from the time it is secured to the inventor or importer.

**SARDINIA.**—The government of Sardinia grants patents of invention and importation; the term and fees being fixed by the Patent Office, at its discretion. Proof has to be furnished the government every year, under penalty of forfeiture, that the invention is kept in operation.

**ROME.**—Roman patents are extended to all persons, whether natives or foreigners, residents or otherwise; and these at the option of the applicant, are granted for five or fifteen years. No fees are demanded, but an annual tax of \$20 must be paid. Infringement is severely punished.

**PORTUGAL.**—The laws and regulations of Portugal are much the same, in respect to patents, as those of Rome, with this difference, that the patent may issue for one year, and the annual tax is five dollars. Infringement is punished as piracy, being so declared by law.

**SWEDEN.**—Sweden grants patents of invention or importation for five or fifteen years. Specifications must be published in the government newspaper, within three months after the grant, and the invention itself go into operation within two years. No government fees are charged.

**SPAIN.**—Spain grants patents to residents or foreigners, for five, ten, or fifteen years, at an annual charge of fifteen dollars. Disuse of the thing patented for a year and a day renders the patent void. Conflicting applications are determined in favor of the applicant first in the order of time.

### COST OF FENCES IN THE UNITED STATES.

BY J. S. SKINNER.

[Having undertaken to be a bit of a farmer ourselves, we know that the following article expresses a truth, which should be more known. Fences are a nuisance in the U. States, and resort should be had to the Osage Orange hedge.]

The cost of building and repairing the fences in the United States, is enormous almost beyond the power of calculation, and forces the inquiry whether Legislatures ought not to be called upon to compel every man to keep his stock to himself. Then no man, who did not choose to do it, would be forced to close his lands against the ravages of his neighbor's stock.

Mr. Biddle, a few years since, in an address before the Philadelphia Agricultural Society, stated that the cost of fences in Pennsylvania amounted to \$1000,000,000. A distinguished writer on National Wealth says: "Strange as it may seem, the greatest investment in this country, the most costly production of human industry, is the common fence which encloses and divides the fields. No man dreams that when compared to the outlay of these unpretending monuments of human art, our cities and our towns, with all their wealth, are left behind. In many places the fences have cost more than the fences and farms are worth. It is this enormous burden which keeps down the agricultural interests of this country, causing an untold expenditure, besides the lands the fences occupy."

Estimating a chesnut post rail fence to last eighteen years, and including inside fencing and repairs, the annual tax to a farmer holding one hundred and fifty acres, will be \$130 to \$140, and judging from the present appearance, the tax is perpetual, and there seems but little hope of escape from it.

Did the intelligent farmer reflect a moment and estimate the annual tax which his fences imposes upon him, he would not rest until the system was abolished, or until the live hedge took the place of the present expensive fence of timber.

### THE UPPER END OF LAKE SUPERIOR AND ITS SOUNDINGS.

There is a large part of our country, which is as yet, almost unknown ground. Much of it is very interesting, and filled with resources, which will in some future day, be fully developed, and add to the growing wealth and greatness of the nation. This is particularly the case with much of the region round Lake Superior. We take the following description of the country round the upper end of Lake Superior, from the *Menasha Advocate*, to whom it was furnished by Mr. A. A. Parker.

"The head of Lake Superior is about twelve miles wide, and forms two semi-circular points. The southern or Wisconsin point, is four miles long, and the northern or Minnesota point, is eight miles long. The St. Louis and Left Hand Rivers meet and discharge their waters into the Lake between those points. Inside of the points the river forms a bay eight miles long, and from one to two miles wide, with from six to twenty-four feet of water. The points are from twenty to sixty rods wide, sandy grounds, covered with yellow pine and an undergrowth of whortleberry. Those are the great summer camping grounds of the Chippewa Indians, and here large quantities of the Siskawit Trout and Whitefish are caught in the Lake and around the entry to the Bay. The St. Louis River is navigable for Lake steamers for eighteen miles to the American Fur Company's Post, sometimes called Fond du Lac, and is a succession of bays, islands covered with blue joint grass, bayous, and channels, among which a stranger would easily be lost in the attempt to navigate it without a guide. The Left Hand River is a narrow, deep stream, and can be navigated with keel boats for a distance of ten miles. These rivers abound in the Muskellunge, Pickerel, Pike, Bass and other river fish.

The entry to the bay is sixty rods wide, with nine feet of water on the bar—is a hard gravel bottom, and does not shift. *Superior City* (Mr. Parker's town) is situated on the main shore opposite the Minnesota point and between the St. Louis and Left Hand Rivers on a bank fifteen or twenty feet high, rising back, composed of red clay and sandy soil, covered with pine, spruce, fir, and birch of a small growth. The city, (which lies in Douglas county, Wisconsin,) was laid out in June last, and now contains over three hundred inhabitants.

The country to the north and south, and nearly parallel with the Lake, rises into lofty ranges of primitive and trappean rocks.—That to the south lies about six miles from the lake or bay. Native Copper in regular and well defined veins—some of them ten feet wide, with distinct walls of clay and



traceable to any distance—have been discovered on this range, and will be opened and worked the coming summer. The conglomerate and sandstone have the same relative position to the trap that they have on other parts of Lake Superior.

There is another range ten miles south from this, and running parallel with it forming a beautiful valley between and meandered by the American River, along the banks of which are meadows of blue joint grass, and well timbered with pine, spruce, maple, birch, red oak and cedar. The country on the north side of the Lake is bold, rugged and mountainous; and the coast from the mouth of the river to the Canada line and beyond, is what a sailor would call iron bound—precipices several hundred feet high extending along the shore. The water is very deep, and but few places where a vessel could anchor. There are three good harbors on this shore, in Minnesota—"Camp Harbor," forty-five miles from the head of the Lake, forming a bay about one mile wide, with an Island in front—"Grand Marias," fifty-five miles further down, is a circular inland bay three-fourths of a mile in diameter, with a good entrance from westward—and "Grand Portage Bay," an island near the mouth of Pigeon river and between that and Fort William, in Canada, are several fine bays completely land-locked, with good entrance, deep and spacious inside and full of siskawit, trout, and sturgeon. Mr. P. and his party caught any quantity of them with a hook and line trolled behind their boat.

"Isle Royal is visible here, about twenty miles to the south. Pie Island and Thunder Cape rise about one thousand feet above the water, and stand facing each other like the Russians and Allies, now and then throwing several hundred tons of rock from off their bald pates down to the bottom of Lake Superior. All of the streams, except Pigeon River and the river at Fort William, are small, and fall rapidly from the mountains several hundred feet, in beautiful cascades, some of which are over a hundred feet deep. These streams contain speckled trout of a large size and weighing sometimes over ten pounds. Numerous small lakes lay inland, around which on beaten trails roam herds of red deer, together with rabbits and partridges.

"The ranges of mountains are of various kinds of rock, coarse granite of different colors, and stone, grey red trap, amagdalied, green stone and slate,—the latter sticking up edgewise—with spar veins of the sulphuret of copper and iron from ten to twenty feet wide, some crossing the regular formation of rock, and others running with it. Native copper, also, in smaller veins, is found."

#### Manufacture of Ordnance.

A correspondent of the Charleston Standard writes as follows respecting the manufacture of ordnance and ammunition at Washington:

Perhaps one of the most interesting places, to a lands-man at least, about Washington, is the navy yard. Investigations and improvements are carried on there, apart from the affairs of common life, which are curious and important, and which are little noticed at the time.

The cutting of bullets from balls of lead, instead of the old way of moulding them, has been practiced elsewhere perhaps, but I never saw the process in operation before. They

are chopped off as rapidly as the punch can be made by steam to fall upon the bar, and they possess an advantage over the moulded bullet, in the fact that the weight of the ball is better distributed—no one part is heavier than the other.

The percussion Cap manufactory is also curious. A thin strip of brass or copper, as thin as deed paper, is put into the machine; a plug, in shape like a club spot on the common playing card, is punched out; this is driven by a punch into a socket; is thumped off the end of the punch, by a spring which is worked by the same machinery, and falls into a hopper a perfect cap. This is filled by machinery equally simple and as inexplicable as the caps seems to one who does not understand the process of its construction. An intelligent lad of about twelve years old, who is instructed in the operation, would manufacture a peck of them in an hour. This also, I presume, is not uncommon; but the matter in which I found the greatest interest was in the ordnance department. A series of experiments are being made, which must ultimately prove of exceeding value. Guns are cast in any shape that may be suggested by the process of investigation, then fired to test their projectile force, then fired until they burst; and when the result has been attained with every care to determine the causes and conditions of the experiments, sections of the broken metal are carefully drilled out from different parts of the piece, from the muzzle and the breech, and the inside and the outside, and each piece is subjected to a strain to test its tensile strength. To apply this strain, one end is fastened to a frame, and the other is taken hold of by machinery, and the power is so magnified that the iron is obliged to part.

In the progress of these experiments, one fact has become pretty well established which rather contradicts received opinion. It has been supposed that the cannon always cooling from without, and the outside contracting therefore around the inside still extended by heat, would become more brittle, but this, in such tests as have been used, would not seem to have been the case. A bar cut from the outside of the cannon will generally part with about the same amount of extension as a bar cut from the inside, whether it be taken from a longitudinal or vertical section of the gun. Another fact of some importance, however, has been established. It is found that the strength of the gun may be much increased by taking the weight of metal from the muzzle and casting it around the breech. A gun, for instance, has been cast with a view to this experiment, which was much thinner at the muzzle than cannons usually are, but which was by so much the thicker at the breech, where the charge explodes. It was fired some 1200 times, under every conceivable condition likely to insure explosion, and when it did burst, the fracture occurred at the breech, as is usually the case with cannons.

LEXINGTON AND BIG SANDY R. R. The Lexington and Big Sandy Railroad Company have appealed to the law for the purpose of procuring the bonds of the city of Lexington to the amount of \$150,000, and of the county of Fayette to a like amount, upon propositions for the subscription of which votes of the people had been taken. Suits have been instituted in the Fayette Circuit Court for this purpose.—*Ky. Tribune.*

LEXINGTON AND DANVILLE R. R. RE-ELECTION OF GEN. COMBES.—We are glad to learn that at the recent meeting of the new Directors of the Lexington and Danville Railroad, GEN. LESLIE COMBES was unanimously re-elected President of the Company. We expected this, of course, as did every one else, it being quite certain that a better officer could not be selected. The zeal, industry and skill which the General has manifested in his management of the Company, as well as the success which has thus far attended his efforts, have been such as to entitle him to the gratitude and confidence of all concerned.—*Ky. Tribune.*

#### Alabama and Tennessee River Railroad.

The receipts of this road for the last nine months, ending on the first inst., have been:

From freights,.....	\$35,685 84
" passengers,.....	12,834 90
" U. S. mail,.....	1,600 00
Total,.....	\$51,310 74
Deduct expenses of maintaining and running road,.....	\$23,383 74

Net earnings, or 55 per cent. of receipts, \$28,027 00

From the foregoing statement it is evident that the road can now support itself and pay the interest on its bonded debt, even should it never progress one step farther. Will the directory—will the stockholders—be willing to let it remain where it is and lose the benefit of the money which they have hitherto spent on its construction? or will they, like wise and true men, unite and push the road across the Coosa river and crown their labors with success?—*Selma Sentinel.*

CHICAGO AND MILWAUKEE RAILROAD.—We learn that if the weather continues favorable this road will be open to Milwaukee during the present week. Thus another ninety miles of railroad will be opened to the trade of Chicago. It is a most important trunk line, and is destined to do an immense business. We shall be glad to welcome our Milwaukee neighbors to a connection with the Garden City by rail.—*Free Press.*

Quarterly Rates of Postage, when paid in advance, on Newspapers and Periodicals sent from the office of publication to actual subscribers.

Weekly newspapers (1 copy only) sent to actual subscribers within the county where printed and published, free.

Newspapers and periodicals not exceeding 1½ oz. in weight, when circulated in the State where published, 3½ cents.

Newspapers and periodicals of the weight of 3 oz. and under, sent to any part of the United States, 6½ cents.

#### DIRECTIONS.

1st. Publishers of newspapers and periodicals may send to each other from their respective offices of publication, free of postage, one copy of each publication; and may also send to each actual subscriber, enclosed in their publication, bills and receipts for the same, free of postage.

2d. Quarterly payments in advance may be made either at the mailing office or the office of delivery. When made at the mailing office, satisfactory evidence of such payment must be exhibited to the postmaster at the office.

#### THE LAW OF NEWSPAPERS.

1. Subscribers who do not give express notice to the contrary, are considered as wishing to continue their subscriptions.

2. If subscribers order the discontinuance of their papers, the publisher can continue to send them until all arrearages are paid.

3. If subscribers neglect or refuse to take their papers from the office to which they are directed, they are held responsible till they settle their bill, and order the papers discontinued.

4. If any subscribers remove to another place without informing the publisher, and their paper is sent to the former direction, they are held responsible.

5. The courts have decided that refusing to take a newspaper from the office, or removing and leaving it uncalled for, is prima facie evidence of intentional fraud.

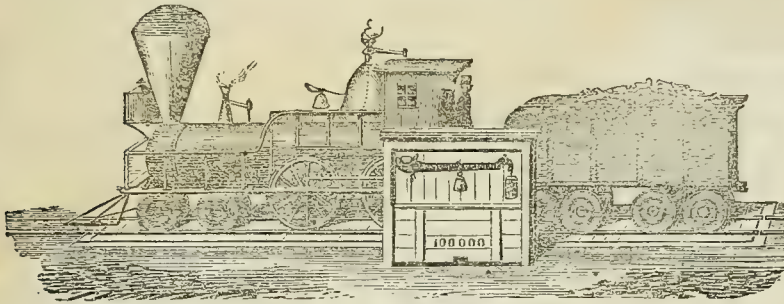


ISAAC RIGDON.

EDWARD C. RYLAND.

WM. HUDDART.

## OHIO SCALE WORKS.



Rigdon, Ryland &amp; Co.,

Nos. 4 & 6 West Second street, between Main and Walnut sts.,  
CINCINNATI.

WE are now prepared to furnish **Railroad Track and Depot Scales** of all sizes, which we warrant in every respect equal to any manufactured in the United States. Being practical workmen ourselves, we feel confident that we can furnish the West and South with as good an article and cheaper than can be bought East.  
Cincinnati, June 29, 1854.

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

Locomotives, Passenger, Baggage, Freight,  
Gravel and Hand Cars,

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for CASTINGS are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNYNS & PECK,  
Louisville, Ky.

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

LOCOMOTIVES OF SUPERIOR QUALITY.

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
RICHARD NORRIS & SON.

NUGENT'S COLLEGE

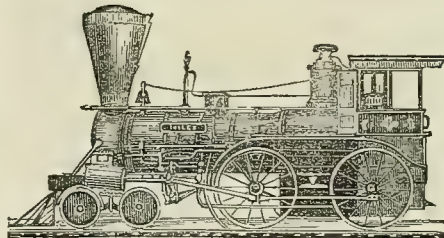
OF  
ENGINEERS & MECHANICS,  
PUBLIC SQUARE, CLEVELAND, OHIO.

C. NUGENT, C. E., Principal.

The design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.

au.10.

## LOCOMOTIVE WORKS.



NILES &amp; CO.,

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

## Lightner's Patent Axle Boxes for Railroad Cars

The attention of Railroad Managers and others is called to this valuable improvement in

## AXLE BOXES.

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes.

Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEKBURNE,

PRINCIPAL AGENT,

May 1846-6\* Office, No. 64 Courtland st., New York.

## PROSSER'S PATENT

## Lap-Welded Iron Boiler Tubes.

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Awning Frames, Leaders, etc.

Brass Boiler Tubes.  
Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Tyres, Platers' Rollers, etc.

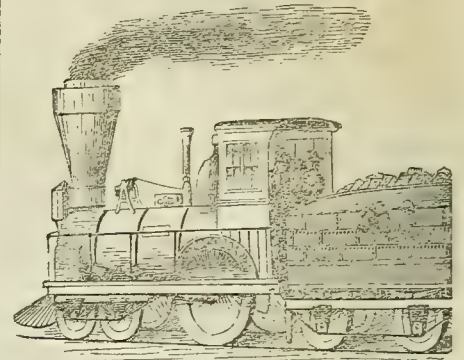
P. S.—All Tools necessary for the construction or keeping in order Tubular Boilers.

THOS. PROSSER &amp; SON,

28 Platt Street, New York.

au.17†

## Cincinnati Locomotive Works!



The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.30

MOORE &amp; RICHARDSON.

## WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers,  
Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T & F. Wason, Springfield,  
Massachusetts.

## Railroad Car Findings.

BRIDGES &amp; BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fitted  
Wrought Nuts, Bolts, & Washers,Engine and Car Screw Bolts, all sizes; Coach Lag and  
Telegraph Screws,

## LOCOMOTIVE ENGINE LANTERNS,

From the best Manufacturers, and at their prices. Car,  
Hand, and Signal Lanterns.

## Cotton Duck for Car Covering,

Of any required width to 124 inches.

ENAMELLED HEAD LININGS  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport &amp; Bridges, Car Manufacturers,

Cambridgeport, Mass.

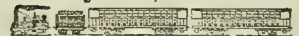
ALFRED BRIDGES,

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

†oc6

## CAR MANUFACTORY,

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops, are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

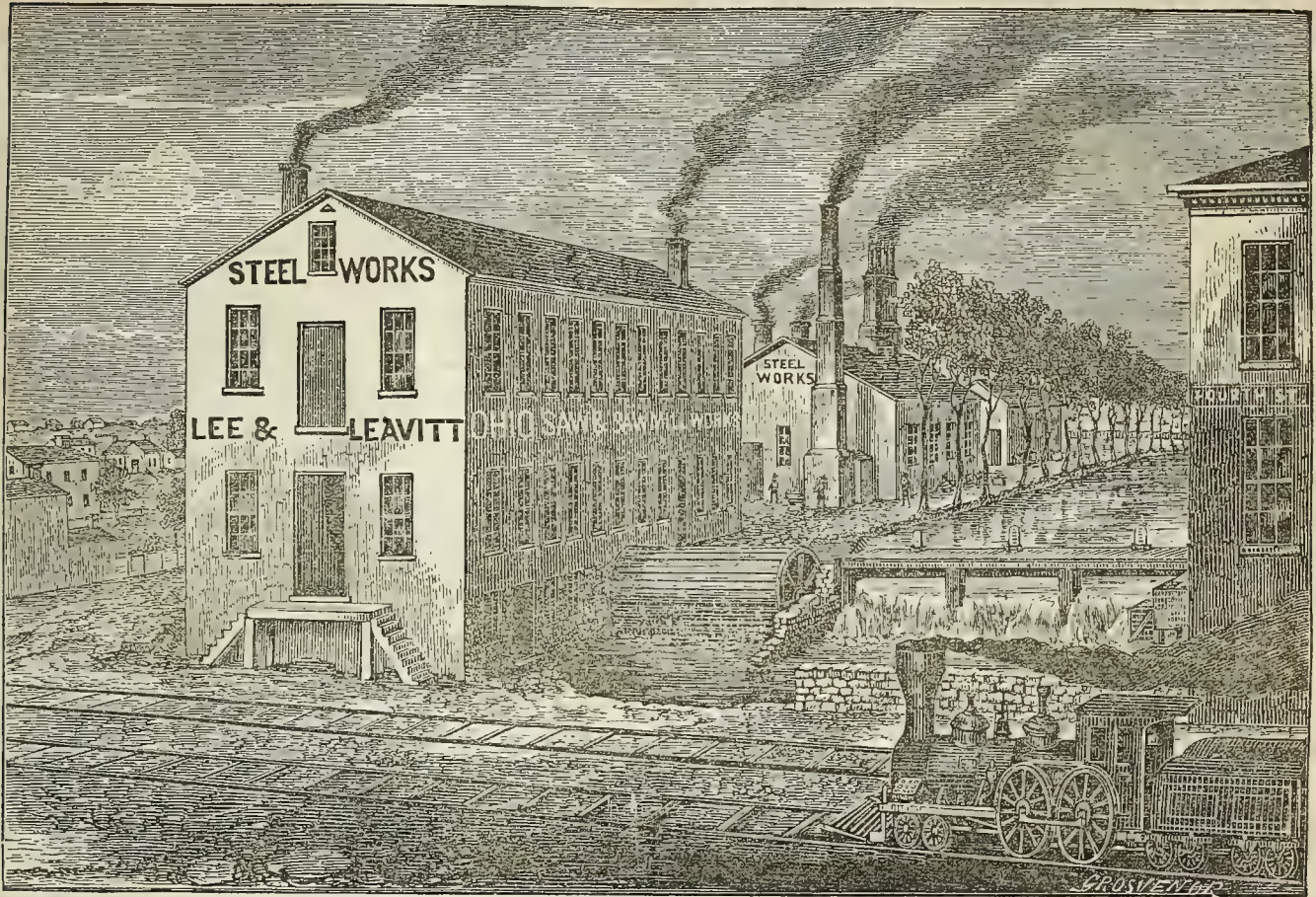
They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan 25-†



## LEE &amp; LEAVITTS,



MANUFACTURERS OF

# CAST STEEL AND CAST STEEL SAWS

## OF EVERY DESCRIPTION;

And of Cast Steel Mandrils, Railway Frog Points, Sledge Hammers, and every kind of Cast Steel Tools.  
Also, Portable Circular Saw Mills, Horse Powers and Engines.

Works, Hamilton, Ohio.—Warehouse, 15 Walnut Street, Cincinnati.

### New Works on Civil Engineering.

THE Field Practice of Laying out Circular Curves for Railroads. By John C. Trautwine, Civil Engineer.—4th Thousand, in pocket-book form with tucks.

ALSO—

A New Method of Calculating the Cubic Contents of Excavations and Embankments, by the aid of Tables and 10 Engraved Plates of Diagrams. By John C. Trautwine, C. E.; 2d edition.

Price, one dollar each. Postage on the Curves, five cents; on the Excavations and Embankments, eight cents. For sale by

Hall of the Franklin Institute,  
Philadelphia, Pa.

Sept. 21-3\*

### ENGINEERING!!

The undersigned is prepared to furnish SPECIFICATIONS, ESTIMATES, AND PLANS, in general or detail of all kinds of

Steam Vessels, Engines, Boilers, Mill Work, &c. Particular attention given to the superintending of LOCOMOTIVES, TENDERS, CARS,

And Railway Machinery of every Description, while under construction.

AGENT FOR THE PURCHASE of, on commission, all articles required for Railroads, Steam Vessels, Locomotives, Engines, Boilers, Machinery, &c.

General Agent for

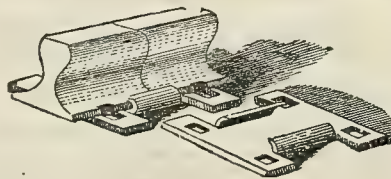
ASHCROFT'S STEAM GAUGE, ALLEN AND NOYES' METALLIC SELF ADJUSTING CONICAL PACKING, DUDGEON'S HYDRAULIC JACK.

Also, for Water Gauges, Indicators, Steam Whistles, &c., &c.

CHAS. W. COPELAND,  
Consulting Engineer,  
64 Broadway, N. Y.

Nov. 5 tf

### RAILROAD SPIKES.



WROUGHT IRON

### Chairs and Fastenings.

THE undersigned will continue to manufacture with increased facilities, HOOK & FLATHEAD R. R. SPIKES, of all Patterns, WROUGHT and CAST CHAIRS, and FASTENINGS, BOILER RIVETS, BOLTS, SHIP and BOAT SPIKES, &c., &c. The best quality of refined iron is used, and all orders filled with despatch. J. HOPKINSON SMITH, No. 23, South Charles st.

Please direct the name in full.  
Baltimore August 31-t

### RAILROAD IRON, LIGHT WEIGHT.

470 TONS, 47 lbs. per yard, good quality and pattern, now lying at New Orleans. For terms apply to  
VOSE, PERKINS & CO.,  
New York

### ENGINEERS' & SURVEYORS' INSTRUMENTS.

JAMES FOSTER, Jr.,

SOUTH WEST CORNER OF FIFTH & RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr. Locke's Hand Level always for sale. For construction and use, see R. R. Record of October 20th, 1853. mar1-tf

### Indianapolis & Cincinnati Railroad.

OFFICE—INDIANAPOLIS, IND.  
Col. T. A. Morris,..... Pres't  
1y mar.27.

### Indiana Central Railroad.

OFFICE—INDIANAPOLIS, IND.  
I. S. Newman,..... Pres't.

### Buffalo & Erie Railroad.

OFFICE—BUFFALO, N. Y.  
G. Palmer, Pres't. Buff. & State R. R. } C. C. Dennis,  
O. H. Reed, Pres't. Erie & North E. R. R. } Supt.  
1y mar. 27.



**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**  
**WHALEBONE AND STEEL WIRE BRUSHES.**  
**Artesian Well Tubes**  
**Screwed Flush inside & outside.**  
**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**

**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**

**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

For warming air, boiling water and heating ovens.

**ANNULAR**  
**SURFACE CONDENSERS,**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**  
 of any calibre.

**PATENTED CAST-STEEL TIRES,**

For Railway Wheels. Railway Axles and Springs,  
**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

**FRIED. KRUPP,**

Essen Rhenish Prussia.

Represented solely in the United States by

**THOMAS PROSSER & SON,**

**28**

PLATT STREET, New York.

**CLINTON ROBSON & CO.,**  
**BRASS FOUNDERS,**  
 No. 154 Front street, between Pike and Butler sts.,  
**CINCINNATI OHIO.**

**STOP COCKS,** Bibb, Flange, Valve, Gauge, and Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes, Couplings, Salt Well, and Hose Joints; Steam Whistles, Distillery Work, General Brassers, Anti Friction Metal, Spelter Solder, and Copper Rivets.

Pumps of all descriptions, Brass and Composition Castings, Dixon's best Black Lead Crucibles.

Also, Dr. Ransom's Patent Constant Suction Pump for Railroad Water Stations.

### RAILROAD IRON.

**I** WOULD respectfully call the attention of Railroad Companies and Contractors to my facilities for **NOTCHING RAILROAD IRON**

Suitable to be spiked in the Chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. Address,

Jan 11.-tf. S. McKENNA, Box 705, Cincinnati P. O., Ohio.

**W. G. ATKINSON,**  
 Civil Engineer, Surveyor & Draftsman.  
 CUMBERLAND, MD.

**RAILROAD** routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared. mail-ly

**THOS. M. CASH,**  
**PHILADELPHIA RAILWAY AGENCY.**  
 For the purchase of all articles required by Railway Companies, On Commission.  
 Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**  
 REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,  
 Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "  
 Charles H. Fisher, Esq.,  
 Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.  
 Pinckney Huger, Esq., Pres't N. E. R. R. Co. "  
 Oct. 13.-tf.

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

**T**HE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Gauges**

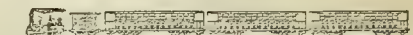
of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. **LEE & LEAVITT,**  
 15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**Cincinnati, Hamilton, and Dayton**  
**RAILROAD.**



**SUMMER ARRANGEMENT.**

COMMENCING MONDAY, MAY 1<sup>st</sup>, 1855.

Trains will leave the Sixth Street Depot as follows:

#### FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

#### SECOND TRAIN.

Indianapolis Express, at 6.05 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

#### THIRD TRAIN.

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

#### FOURTH TRAIN.

Hamilton Accommodation at 12 M., for Hamilton and all way stations.

#### FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.15 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

#### SIXTH TRAIN.

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

#### SEVENTH TRAIN.

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Passengers by the 6 A. M. Lightning Express Train, go directly through to Cleveland without changing cars. Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.  
 The Omnibus Line will call for passengers by leaving their names at the Office.

**WINTER ARRANGEMENT.**  
**SAFETY.—SPEED.—COMFORT.**

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena and**  
**Rock Island,**

**BY THE WAY OF THE**  
**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in ..... 15 HOURS.  
 TO ST. LOUIS, in ..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

**THROUGH BY DAYLIGHT TO TERRE HAUTE,**  
**LAFAYETTE, PERU, &c.**

Trains leave the Depot of the Cincinnati, Hamilton and Dayton Railroad as follows, viz:

First Train.—Lightning Express at 6 A. M.

Second Train.—Accommodation, at 2.15 P. M., connecting at Richmond with train for Hagerstown, New-castle, &c., &c.

Third Train.—Accommodation, at 5.20 P. M., for Richmond and intermediate points.

Returning, reach Cincinnati at 10 A. M. and 12 M. and 6 P. M.

Fare to Indianapolis ..... \$3 50

" Lafayette ..... 50

" Terre Haute ..... 50

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

JOHN W. SHIPLEY, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
 D. M. MORROW, Superintendent.

Feb. 8-ly



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

FOR FREIGHTS IN EITHER DIRECTION

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

## Philadelphia and New York Railroads,

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 8† Baltimore.

The Shortest, Quickest and Best  
ROUTE TO LOUISVILLE.

MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.

## OHIO &amp; MISSISSIPPI RAILROAD,

ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER notice, the Passenger Trains will run as follows:

## For Louisville and New Albany.

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

Fare \$2 50.

## For Indianapolis.

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

Fare \$3 00.

## For Lawrenceburg and Aurora.

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M. 2.30 P. M., 4.05 P. M., and 9.30 P. M.

Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth Street, north side, four doors from Vine Street, opposite new Custom-house.

S. S. POST,

Chf. Eng'r and Supt.

Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.  
W. S. BABCOCK, Agent,  
Sept. 5. St. Louis and Cincinnati Omnibus Line.

1855. Winter Arrangement, 1855.  
COMMENCING MONDAY, JAN. 29.

LITTLE MIAMI AND COLUMBUS, AND XENIA RAILROAD.—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

## FROM CINCINNATI TO

To New York in.....	32 1/2 hours
To Philadelphia in.....	31 1/2 "
To Washington in.....	29 "
To Baltimore in.....	28 "
To Buffalo in.....	16 1/2 "
To Dunkirk in.....	15 "
To Cleveland in.....	9 1/2 "
To Sandusky in.....	8 1/2 "
To Pittsburgh in.....	14 "
To Wheeling, in.....	10 1/2 "

## FOUR DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

SECOND TRAIN.—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

THIRD TRAIN.—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Morrow.

FOURTH TRAIN.—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## FARE AND THROUGH TICKETS.

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-box Landing, or at the Eastern (Little Miami) Depot, East Front street.

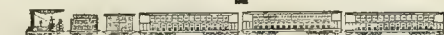
WM. H. CLEMENT, Superintendent.

P. W. STRADER, General Agent

## OMNIBUS LINE.

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

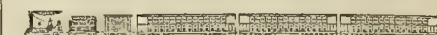
A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-tf.

## PERU &amp; INDIANAPOLIS R. R.



Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays expected, at 6.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.

Indianapolis, March 23, 1855.

## Covington and Lexington Railroad.

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Can'ton, Benton, Clarkson, Demosville, Butler, Irving, Paimouth, Cullenville, Boyd's, Berry's, Robinson's, Garrett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

## RATES OF FARE.

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

## FOR THROUGH TICKETS,

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,

Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices.

oct. 17\*

CLAYTON &amp; GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 7.15 A. M., and 3.15 P. M. Arrive at Indianapolis at 11.30 A. M., and 8.30 P. M.

By Morning Train, passengers arrive at Chicago in 14 hours, and at St. Louis in 28 hours.

Freight shipped to Indianapolis and all other points West and North without delay, at cheapest rates.

Cars run from Lawrenceburg to Terre Haute, Lafayette, Peru and Chicago, without unloading.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,

Cincinnati, Sept. 28, 1854.

Agent.

General Map Establishment,  
No. 3 College Hall, Walnut St., CincinnatiE. MENDENHALL,  
MAP, BOOK & PRINT SELLER,

Has constantly on hand

GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers,  
Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES,  
DRAWING INSTRUMENTS, &c.

Publisher of the

Railway Map of the Western States,

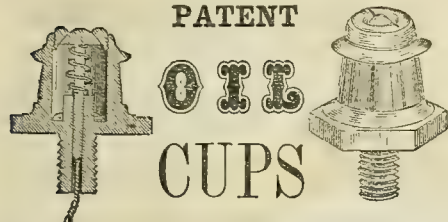
In Sheet or in Pocket Case;

The LARGE SECTIONAL and RAILWAY MAP of OHIO,  
the LARGE MAPS of CINCINNATI, and HAMILTON CO.,  
Ohio, and the TOWNSHIP MAPS of INDIANA and IOWA.

MAPS OF EVERY DESCRIPTION.



## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

**NOTICE TO CONTRACTORS.**—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Obion (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburgh and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

may 17-4t.  
[Railroad Journal please copy.]  
BECKER & RUST,  
General Contractors.

## STEREOTYPE FOUNDRY,

AND AGENCY OF

L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of

### STEREOTYPING,

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,

168 1-2 Vine Street, Cincinnati, O.

## DURYEE & FORSYTH'S

PATENT

## PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

HEWSON & HOLMES,  
83 and 85 Walnut Street.

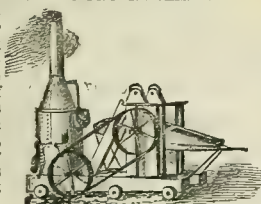
## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.

A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee,

G. ARTHUR GARDNER,  
Trinity Building, N. York



## Railroad Record

PUBLISHED EVERY THURSDAY MORNING,

By T. WRIGHTSON & CO.

Office No. 167 Walnut Street,

E. D. MANSFIELD, EDITOR.

J. A. JAMES, }  
W. WRIGHTSON, } ASSOCIATE EDITORS.

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AUBIN'S PATENT.—We are agents for this new and improved furnace, and having had one in operation at our office for several months past, can confidently recommend it as being simple in its operation, occupying little room and furnishing a pure and beautiful burning gas. From the peculiar arrangement of the retort it is not liable to *burn out*, thus saving a great part of the expensive repairs of other furnaces. We are prepared to erect these furnaces at our own risk and warrant them to produce good gas.

T. WRIGHTSON & CO.,  
167 Walnut-st., Cin'ti.

## Railroad Printing.

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

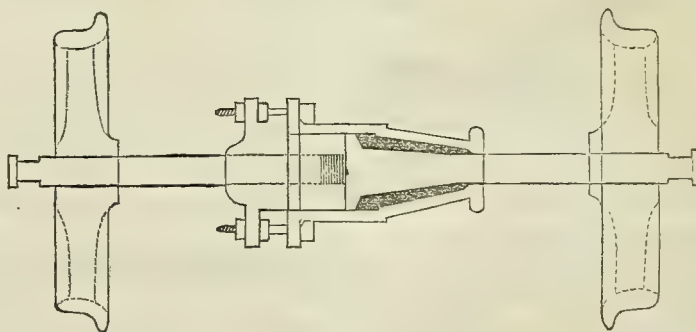
Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,

Railroad Record Office, 167 Walnut st. Cin.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

SAMUEL L. DENNEY,

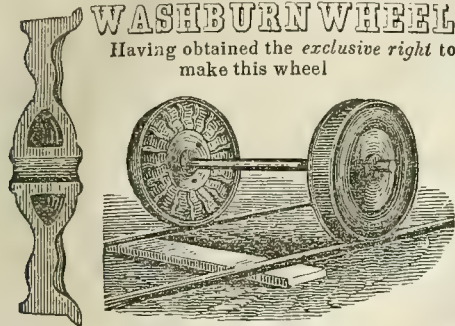
Christiana, Pa.

Or, to CHRISTIAN UMBLE,  
Gap, Pa.



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



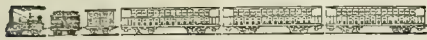
**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
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ap.12

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

## DAVENPORT, RUSSELL & CO., Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburgh, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

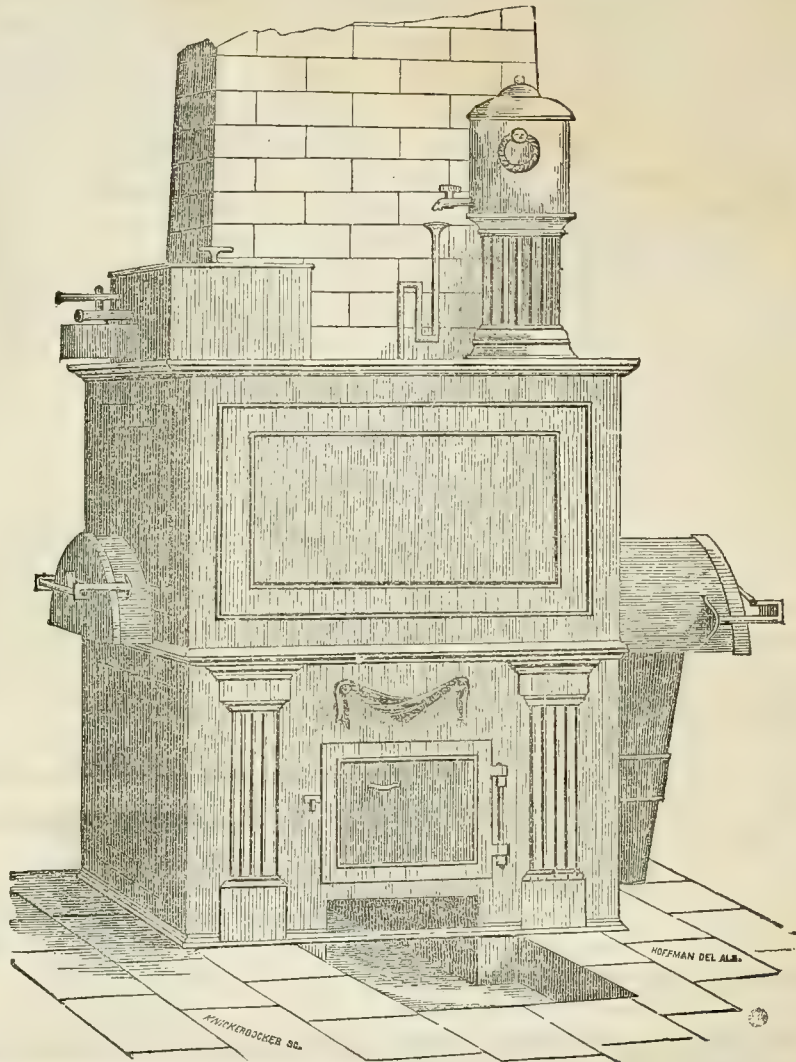
Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16\* **JOSEPH DAVENPORT.**

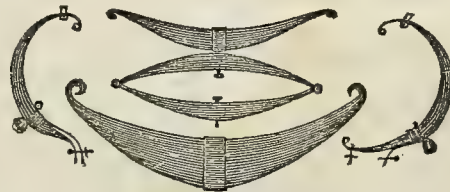
## S. C. THOMSON & CO., MANUFACTURERS OF PATENT PAD LOCKS, For Railroad Switches, Merchandise Cars Stores, Cemeteries, Iron Safes, &c., Cor. Railroad Avenue and Market st., n.12} NEWARK, N. J.

## N. AUBIN'S GAS GENERATOR,



**T. WRIGHTSON & CO., AGENTS,**  
Cincinnati, Ohio.

## MCDANIEL & HORNER, LOCOMOTIVE AND CAR MOTIVE SPRING



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

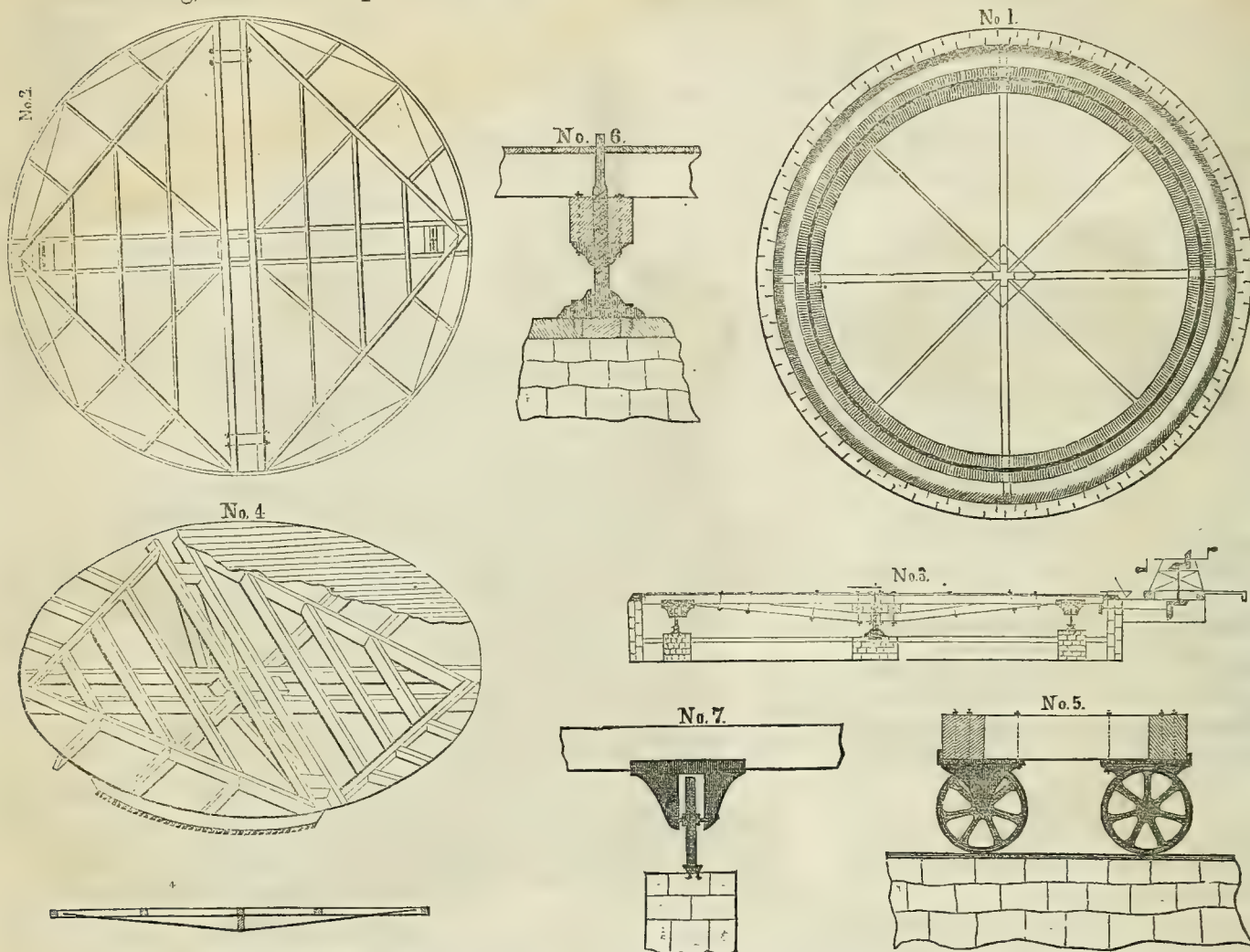
NORRIS BROTHERS, Locomotive Builders, Philad.  
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May 19.

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# CARHART'S IMPROVED TURNTABLE.

Now building, for 13 Principal Roads in Ohio, Indiana, New York, New Jersey and North Carolina.



This Table, together with an Engine and Tender of 30 Tons Weight, can be turned by One Man in 25 Seconds.

RAILROAD COMPANIES in want of *Turntables* of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction.

The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati & Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Sup't, Marion, O.  
Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, North Carolina.  
Central North Carolina Railroad.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.  
Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of *Bank* and *Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the store track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

D. M. CARHART, Cleveland, Ohio.

## RAILROAD HOTEL.

CINCINNATI, O.

THE GIBSON HOUSE, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.

A. WETHERBEE, Proprietor.

## TO RAILROADS AND CONTRACTORS.

HORSE POWERS.—The undersigned being agents for the sale of R. H. Pease formerly Emery & Co.'s Horse Powers, are prepared to furnish them to order. They occupy little room and do their work effectually. T. WRIGHTSON & CO.

## MATHEMATICAL INSTRUMENTS.

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Streets,

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

Surveyors' & Engineers' Instruments,

Theodolites, Transits, Levels, &c.,

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

## CINCINNATI:

THURSDAY MORNING,.....MAY 24, 1854.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

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## To our Advertisers.

Several advertisements intended for insertion in the last number of the *Record*, were destroyed, together with the copy, at the fire in our printing office last week. Will those friends interested, be kind enough to forward other copies.

## TO OUR FRIENDS.

So complete was the destruction of everything combustible, in our office, at the time of the recent fire, that we have not even a file of the present volume left. We would, therefore, be greatly obliged to our subscribers who have more than one copy of Vol. 3 of the *Record*, if they would spare us some of the extra copies. Our reports, pamphlets, books of reference, and exchanges which we had treasured with care, are all either burned or so injured by water and otherwise, as to be of no service; we have, therefore, to request of the railroad companies, who have been kind enough to send us their reports hitherto, to furnish us with duplicates of the present and preceding reports as far as they are able.

VOL. III.—No. 13.

## CINCINNATI, HAMILTON & DAYTON R. R.

The Annual Report of this company is dated May 7th, 1855; but, we have been unable to review it, till this time. The *Cincinnati Hamilton and Dayton Railroad* is, in many respects one of the most interesting and valuable in the country. It lies in the richest valley of the West; terminates in a great and magnificent city; is not surpassed by any road of the country, in the proportion of passengers carried, and is managed by an able and intelligent Board of Directors. With all this,—its stock is lower in the market than it should be, indicating clearly, that it has not the entire confidence of the public. Why not? Perhaps, the only cause, (if there be any just cause), may be found, in the financial and business accounts, it has rendered in its Reports. We propose to review their accounts, and represent the exact state of their affairs.

### 1. THE CONSTRUCTION ACCOUNT.

The actual cost on this road, on the first April, 1855, was as follows: viz.

Construction Account.....	\$2,414,499 43
Equipment “.....	517,632 35
Real Estate “.....	218,486 05
Property bought (chiefly stocks,).....	363,067 10
Steamboat.....	100,000 00

Aggregate cost.....	\$3,614,604 93
Average per mile, (60 miles,).....	\$60,000

If the steamboats and stock in other roads were sold, they might *probably* realize 50 cents on a dollar, and \$230,000 realized, by which the aggregate cost would be reduced that amount. Perhaps, also \$100,000 might be obtained by the sale of real estate. Thus the aggregate cost of the road might be reduced to \$3,300,000, or \$55,000 per mile. This is the *minimum*, which can be got of the cost. We frankly confess, that is much beyond our own estimate of the cost of Cincinnati Roads, and we are surprised at the result.

Exclusive of depots, depot ground, and rights of way, (and the second track commenced,) the Road has cost, \$2,800,000. Now, let us turn a leaf back. On the 6th May, 1850, Mr. R. M. Shoemaker, engineer of the Road, reported the entire cost of construction to be—\$647,313, or considerably less than *one fourth* the above amount!

That we may render justice, both to Mr. Shoemaker, and the Company, we subjoin the following comparison between the estimates of Mr. Shoemaker, and the doings of the Company.

	Estimate.	Cost.
Graduation and Masonry..	\$286,136 58....	\$850,853 88
Superstructure including iron, spikes, &c.....	204,400....	609,711 95
Equipment.....	100,000....	517,632 35
Water Stations, &c.....	20,000....	50,000 00
Right of Way.....	—.....	133,158 60
Engineering Expenses...	26,775....	76,577 37
Depots, &c.....	—.....	171,952 32
Fencing.....	—.....	30,539 74

Law and Expense account.....	—.....	35,678 63
Interests and Discounts...	—.....	251,761 73
Second Track.....	—.....	151,432 67
Stock in other Roads.....	—.....	350,000 00

Estimate and Result,..... \$647,313....\$3,480,007 83

That part of the work, for which Mr. Shoemaker estimated, came to about, \$2,200 00 or more than three times the estimate.

The road was opened on the 18th of September, 1851, and although, of course, a liberal allowance should be made for additional equipments, stations, &c.; yet, in the main, the *actual construction account* of the road should there be ended, except when they should in future, add a second track. In May 1852, when the road had been eight months running,—we have the 2d Report of the Company—when Mr. Shoemaker, Engineer and Superintendent, returns the *actual construction cost*, as follows, viz:

Graduation, Masonry, and Bridges.....	\$896,740 00
Superstructure, Iron, &c.....	469,999 60
Depots, Rights of Way, &c.....	210,638 00
Equipment.....	199,783 00
Sundries.....	41,500 00

Aggregate Construction..... \$1,828,570 00

Deducting equipment and depots, the *cost* of the road had run up in these two years to more than double.

We need not recapitulate details; but will give a general view of the rise and progress of the *construction account*, viz:

Estimate May 1850.....	\$647,313
Report May 1852.....	1,828,570
“ May 1853.....	2,508,111
“ May 1854.....	3,216,862
“ May 1855.....	3,614,604

This is certainly to the stockholders a very interesting account. It shows how a railway like a new town in the West, is *never finished*; and at this rate, seems little likely to cease growing in its Ledger accounts. But if we could get at it, it would be more interesting to know *how* it grew. In the first place, let us throw out the estimate, and take the *construction cost* in 1852, and compare it with that of 1855.

Grading, Masonry, Superstructure, iron, Bridges, Depots and Rights of Way in 1852.....	\$1,577,300 00
Same in 1855.....	1,940,000 00

Increase..... \$362,700

In the above we have deducted the second track, and the equipment. Now, for what was that \$350,000 paid? If it was paid to keep up the road and maintain the way, it has no business in that account, it belongs to the expense account. Let us proceed with the *additional expenditures*:

	May 1852.	May 1855.
Equipment.....	\$199,783....	\$517,632
Engineering and Sundries.....	61,496....	101,500
Real Estate.....	—.....	218,480
Stocks.....	—.....	350,000
Discount and interest on Bonds..	—.....	271,361
Second Track.....	—.....	151,432
Steamboats.....	—.....	100,000
Total.....	\$251,279	\$1,650,405



Increase,.....	1,399,126
Increase of Construction,.....	363,000

Aggregate Increase,..... \$1,762,126

The above items show exactly how the construction account was increased the last three years.

### 2. INCOME AND EXPENSES.

This account has always appeared an encouraging one in the reports of the company, and with some reason—for its passenger business has been very large, and its freight business good.

The following is a compendium of the receipts and expenditures of the company. We give the statement of the Company first, deducting afterwards the charges, which should be placed to that account:

	Receipts	Run.	Expen.
April 1st 1852,.....	\$ 97,214....	\$ 35,181	
" 1st 1853,.....	321,793....	290,956	
" 1st 1854,.....	463,021....	187,207	
" 1st 1855,.....	483,620....	234,717	

The following is a statement of the construction cost on each of these days—the balance of *net profits*, and the *per cent.* yielded as thus obtained:

	Cost.	Nett Profits.	Per Cent.
1st April 1852,....	\$1,828,570	\$ 62,033	3½ per cent.
" " 1853,....	2,508,111	120,837	4½ "
" " 1854,....	3,216,862	275,824	8½ "
" " 1855,....	3,614,604	248,903	7 "

It will be seen from the above, that in the last two years, the stock of this road has been very good; but that it is not at all improved by the violent efforts made to secure an Eastern traffic. There is one little *fancy* in the reports, which may be set down to what we call the *poetry of railway*. It is the item of a "*Reserved Fund.*" This undoubtedly exists on *paper* to the extent of \$171,000. But, a reserved fund should be *some where*, and this is no where. The *floating debt* of the company absorbs all its cost and assets. Of course there is no *reserve fund* in existence. To illustrate this, we give the figures of the current account, viz:

DCE.		
Bills payable,.....		\$464,800
Due on Account,.....		51,995
Floating Debt,.....		\$516,795
ASSETS.		
Cash,.....	\$123,737	51
Bills Receivable,.....	9,451	00
Accounts,.....	84,129	00
Assets:.....	\$217,317	51
Balance of Debt,.....	299,478	00

The reserved fund, and the scrip dividend amounting to \$257,000, have nothing to answer for them, except what the road may make, or borrow.

### 3. TRAFFIC.

In the traffic of this road, we find its best aspect, and one which in connection with a systematic economy will make it a profitable work.

The following is a compendium of the receipts from passengers and freight in each year:

	Passengers.	Freight.
April 1852,.....	\$ 74,427.....	\$ 21,540
" 1853,.....	191,700.....	122,377
" 1854,.....	274,650.....	176,112
" 1855,.....	259,915.....	211,562

This shows a very rapid increase in business, and is very encouraging. Notwithstanding the *freight* increases the fastest, it is not to this road, the most profitable. This road is mainly a passenger road.

The following is the number of *through*, and *local* passengers, in the two last years:

	Through	Local
In 1853-4,.....	8,247.....	329,837
In 1854-5,.....	19,850.....	350,339
Aggregate,.....	28,097.....	680,176

It thus appears that only 1 in 24 of the whole number are *through* passengers. It also appears, that the average *paid* by each passenger is 80 cents; and as the price is 3 cents per mile,—that the passengers did not average 30 miles each. This is an instructive lesson to the managers of the road. It shows, that the *real interest* of the road lies in its *local traffic*, and that the expenditures to go out of itself, to get business from other roads, and compete with other lines for Eastern traffic, are worse than useless. They are only cost, without any return.

We have gone through this elaborate review, with the single purpose of discovering the true condition of the work, and giving an example of railway analysis. The result is, that the Cincinnati, Hamilton and Dayton railway may be made a very profitable stock, by the application of three plain principles; 1st. By closing the construction account entirely; 2d. By expending nothing outside the Road itself; and 3d. By doing no work which does not pay a profit. We believe it may be made a *permanent 8 per cent. stock*, and there is no such stock, where the work is complete and secure, which is not above par. It is as much as any company ought to aim at *dividing*. If it makes more, it should be placed in a Savings Bank to meet contingencies.

### Trade of the Sandwich Islands.

W. L. LEE, ESQ.,—Chief Justice of the Sandwich Islands,—has just passed through this city on his way to Washington. His object is to obtain a reciprocity treaty between the islands, and the U. States; especially, in regard to the import in California, of coffee and sugar. These are the great articles of production there, which owing to the climate and the soil, are raised in great abundance. In return, the islands would obtain nearly all their supplies of manufactured articles, and much of their provisions from the United States. The product of sugar there is large, and to California, it could be obtained much cheaper, than from any other quarter. To the Hawaiians, it would be im-

portant, by affording a steady and valuable market. The sugar of the island could be sold cheaper to California, but higher to the producer, than either party could obtain elsewhere.

In the future of commerce, the Sandwich Islands are to play an important part, and, we can conceive of no good reason, why a Reciprocity Treaty should not be made. It would encourage the agricultural industry of the islands, and make them more valuable to the United States.

### CITIES OF THE WEST.—No. 3.

#### EVANSVILLE, INDIANA.

This town was laid out about the year 1836, by citizens of Cincinnati, of whom the principal were Samuel R. Miller and Micajah T. Williams,—the then President and Secretary of the Ohio Life and Trust Company.—Since then it has grown with great rapidity. The city of Lamasco was laid out adjoining it. We take from the Report of the Evansville and Indianapolis Railroad the following statistics:

#### THE CITIES OF EVANSVILLE AND LAMASCO.

The Population of these cities in 1845 was 3,850; in 1850, 5,850; in 1855, 12,000, with a continuous daily rapid increase.

TAXABLES, in 1845, \$626,380; in 1850, \$2,117,575; in 1855, \$8,098,539.

ARRIVALS AND DEPARTURES OF Steamers, from 1850 to 1855—15,560.

In the Green River, Ky., trade.....	3,000
In the Wabash River trade,.....	3,500
In the Ohio River trade, besides other craft....	9,060

#### EXPORTS SHIPPED, 1854:—

Flour, Beef, Pork, and Lard, packages.....	300,000
Apples, Potatoes, Brans, Eggs, &c., packages..	120,000
Cured Meats, Hams and Bacon, packages.....	25,000
Sacks of Corn, packages.....	5,300,000
Sacks of Wheat, Oats, and Barley, packages..	2,150,000
Tons of Pig Iron, (first year by Canal).....	1,000
Tons of Hay.....	3,600
Number of Cattle.....	9,500
Poultry, dozen.....	120,000
Furs.....	\$200,000
Lumber, used and shipped, feet.....	7,500,000

#### IMPORTS:—

Dry Goods, trade.....	\$490,000
Grocery, trade.....	960,000
Iron and Hardware.....	150,000
IMPROVEMENTS, within five years, buildings one-third brick.....	970
Steam Flouring and Saw Mills.....	11
Engine, Foundry, Finishing, Sheet Iron, and Boiler Establishments.....	8
Other Manufactories.....	51
Churches.....	14
Cash Paying Banks.....	4
Splendid Court House, cost.....	\$45,000
Marine Hospital, being built by United States to cost.....	\$50,000
A Graded School System, supported by taxation.	
The City lighted up with Gas.	
Wharf, in front of Cities.	

BALTIMORE AND PHILADELPHIA CENTRAL RAILROAD.—The friends of this road held a meeting at Bel-air, Md., on the 9th instant, to take measures to raise subscriptions to its stock in Harford county, to the amount of \$100,000. Dr. Taylor, the President, of the road, informed the meeting that 36 miles, within Pennsylvania, were under contract and being constructed, and that in twelve months from this time the cars would be running upon it from the Susquehanna river to Philadelphia, a distance of sixty miles.—*Baltimore Amer.*



## Railroads.

### EVANSVILLE, INDIANAPOLIS AND CLEVELAND STRAIGHT LINE RAILROAD.

We have received the Annual Report of this Company, and make from it the following extract to show the condition and progress of the work.

The South part of the Road, from Evansville to Newburg, 73.71 miles, and the East end, from Indianapolis to Mottonsville, 28.29 miles, have been permanently located, making 102 miles, and only 4.19 miles longer than an air line. The whole line will not exceed 155 miles.

#### POLICY OF THE COMPANY.

The road is laid off by the Board, for construction, into three divisions. The first from Evansville to the crossing of the Ohio and Mississippi Railroad. By the construction of this division, we connect Evansville with Cincinnati and St. Louis, over that road from the Junction. The second extends the line to the New Albany and Salem road, near Gosport. By the construction of this division, we connect Evansville with Michigan City, Chicago, Detroit, and Toledo, over that road from the intersection. The third division completes the road to Indianapolis, the Capitol of the State, where we form our Eastern and Northern connections. The several divisions will be held, until completed, as if they were separate roads, to be graded in their proper order, to be mortgaged for the iron separately, by a first mortgage only, so as to avoid the mistaken policy of executing subsequent mortgages on the same road. Each division of our road, by its connection with through lines of other roads, must pay well, so soon as it shall be in operation. By this policy we will have, in fact, but one-third of our road on our hands for construction at one time. The whole of our available means will be confined to the first division, until it is made ready for the rolling stock, and when in operation, we shall have its proceeds in aid of our other means, in the prosecution of our work. As our stocks bear interest in stock, until the whole road is completed, no part of the net earnings of the finished divisions can be diverted from the legitimate purposes of meeting the liabilities of the Company, until the whole road shall be built and put to use. This policy, if steadily adhered to, cannot fail in constructing the whole road, while the contrary one, of scattering our means along the extended line, might endanger, if not entirely defeat the whole enterprise.

#### CONTRACT FOR BUILDING ROAD.

In the month of May last, the Board, by the unanimous vote of the Directions, entered into a contract with Willard Carpenter and Company, able and energetic contractors, for the building of the road from Evansville to

Indianapolis, in three divisions, for the consideration of thirty thousand dollars per mile, all payable in stock and bonds at par, as the work progresses. The Contractors to find the iron and all other materials, and build the road, with all the bridges, turn-outs, switches, wood and water stations, ample passenger and freight buildings, machine shops, engine houses, and other necessary buildings for the road, at Evansville, Indianapolis, the crossings of three railroads, and at every ten miles on the line. The road to be a first class T Railroad, of sixty pounds rail to the yard, with heavy White or Bur Oak ties, nine feet long and facing eight inches. The road to be perfectly ballasted, and be made in all respects to the acceptance of our Chief Engineer, in three divisions, each division to be subject to our use so soon as the iron shall be laid. The whole road to be completed by the month of December, 1857.

The advantages which this road will have, as a railway, are:—

1. A very productive country, having a population of about 160,000, and appraised at \$40,000,000.
2. That of making the best connection between Evansville and the Ohio & Mississippi Railroad.
3. That of a rich mineral region; viz., a marble quarry, at Gosport; coal, of the best quality, in great quantities; iron-ore, &c., In fact, this road will have great resources in this branch of traffic.

This road has been severely attacked; but we do not see why it is not a very good project, offering ultimately remunerative dividends.

The means to construct it are as follows; viz.:

Bonds of Evansville and Lamasco.....	\$250,000
Real Estate.....	357,847
Cash Stock.....	103,241
Lands Subscribed.....	150,000
Graduation ".....	120,000
Contractor's Stock.....	750,000
Agregate.....	\$1,731,088
Contract Cost.....	\$1,650,000

This looks very well; but, we apprehend, that contractors now a days can take no more stock than they can pay for, and that is but a small part. Still, if the road be finished only *by sections*, we believe it can be made, taking time, and we also think Evansville a termination offering many advantages.

SAVANNAH, ALBANY AND GULF RAILROAD. —The annual meeting of the stockholders of this company was held at the exchange yesterday, Mayor Anderson in the chair, Wm. Battersby, Esq., acting as secretary. Amount of stock represented, \$1,204,000. The minutes of the last annual meeting were read and confirmed, whereupon on motion of Solomon Cohen, Esq., seconded by H. D. Weed, Esq., the meeting was adjourned until Wednesday, the 23d instant, at 12 o'clock, M.—*Savannah Journal*, May 19.

### Lexington and Danville R. R. Co.

We have received the Fourth Annual Report of the President, and Directors of this Company.

This Company is in a most fortunate condition, as to one most important point. It *owes no debt* of magnitude. The whole debt not specially provided for is \$6,374,—while the assets on hand is \$65,000.

The receipts and disbursements of the company have been as follows:—

Amount of Stock Subscribed.....	\$652,450
" " Paid in.....	579,816
Total receipts.....	\$661,642
Construction.....	570,963

A great deal of work has been done on this road; and the great viaduct over Kentucky River most fitly called the CLAY VIADUCT is far advanced towards completion. The company requires but little aid to carry its work to Danville. And, cannot that little be easily got? To Cincinnati, this road will be worth double its cost, and her citizens ought to make up the sum asked for. In reference to this, and the construction of the work, the President (General Coombs) says:

An appeal has been made to the *City of Cincinnati*; heretofore so anxious to consummate her long cherished project of a Railroad connection with *Charleston* and other Southern seaports, for a small subscription of stock, (\$100,000,) which, added to our present resources, will carry us to the Kentucky river during the current year.

When notified that the amount required has been subscribed, we shall put the *ten Sections*, from No. 13 to 22, inclusive, again under contract, as well as the interval now untouched between our Depot and that of the Covington and Lexington Railroad. This will bring us within 12 miles of Danville, the present contemplated temporary *resting place* of our road; and we hope, very soon after reaching that important point, to be able to move onward to our Southern border, where the great works now approaching us from the South Atlantic, Gulf of Mexico, and Lower Mississippi, propose to meet us.

When we know that the Railroads from the Upper Mississippi and Northern Lakes concentrate at *Cincinnati*, while those East of the Lower Mississippi and resting on the Gulf and South Atlantic, comprising some five hundred and fifty millions of dollars, are aiming to penetrate central Kentucky, in order to avail themselves of our varied agricultural products, and through us, to reach the Ohio river, for the purpose of enjoying the benefit of its great manufacturing industry, we do not consider it extravagant to say, that our road when finished, will be unsurpassed in importance and in *yielding profits on investments*, by any work west of the mountains.



In view of these facts, we recommend that application be made to the next Legislature to change our corporate name to one which will appropriately designate our unrivalled future position as the *connecting link* through Kentucky between the *North and the South*—binding them together by all the interests which *social intercourse and commerce* can add to those now existing of a political character.

After Shoup & DeGraff abandoned the work and forfeited their last contract, we ceased operations beyond the Kentucky river, where some very heavy work has been done, and devoted all the stock subscriptions in Boyle and Mercer counties to the *massive towers and anchorage* of the Suspension Bridge across the chasm of the Kentucky river. This gigantic portion of the work has been executed in a manner and with materials that will compare favorably with any similar structure on the top of the earth, not excepting those erected by the same great architect for his viaduct across Niagara. The whole estimate thus far has been paid, amounting to \$97,192 23, including a portion of the wire and timber, (under cover) upon the ground, ready to be put up when required.

#### Memphis and Charleston Railroad.

We have received the Fifth Annual Report of the Board of Directors, of the Memphis and Charleston Railroad Company. We are glad to find this important work in so flourishing a condition. The object of this work is to complete a Railway connection between Memphis, (Tennessee;) and Charleston, (S. C.), *via*, La Grange, Tusculumbia, Decatur, Huntsville, and Stevenson, to an intersection with the Nashville and Chattanooga Railroad, which connects with all the Georgia and Carolina system of Railways. The whole length is 286 miles, and the reader will perceive that it is a work of the very highest importance to the richest parts of Tennessee and North Alabama. It passes through a beautiful and most productive cotton region.

109 miles of this Road are now in operation; *viz*, from Memphis to La Grange and Somerville, and a portion near Tusculumbia. The whole line will, it is thought, be finished in 1857, two years from the present time. It will constitute a part of the Southern Aerial Line, between the Atlantic States and the Mississippi River. The financial condition of the Company appears to be very good. The following appears to be the elements, *viz*;

Estimated Cost .....	\$1,940,263
Paid Out.....	2,653,837
Balance.....	2,286,425
Sundries.....	157,173
	\$2,443,598
Available Ascts.....	1,680,416
To be Provided.....	\$763,182

The portion of the Road, from Memphis to La Grange, and Somerville, making 62 miles,

is in operation, and the results are as follows:

Gross Recpts for the Year ending March 1.	\$180,922
Expenses.....	73,691
Nett Profits.....	\$107,131

The cost of this portion is estimated at \$800,000. The nett profit, therefore, is 13½ per cent.

If this road do not cost more than \$6,000,000 when fully completed, it may be considered as good 10 per cent. stock. There are few Railways better located for business, or, that will have less competition for that business.

#### Baltimore and Ohio Railroad.

The regular monthly meeting of the Board of Directors of the Baltimore and Ohio Railroad, was held this morning.

The revenue for the month has been as follows:

	Main Stem.	Wash. Br.	Totals.
Passengers.....	\$57,840 12	\$23,721 85	\$81,561 08
Freight.....	278,870 77	8,634 46	287,505 23
	336,710 86	32,356 32	369,066 31

As compared with the corresponding month of April, 1854, we have the following result:

	Main Stem.	Passengers.	Freight.
April, 1855.....	\$57,840 12	\$278,870 77	\$278,870 77
April, 1854.....	46 701 22	304,669 95	304,669 95
Increase.....	\$11,29 60	Dec. \$25,798 82	11,129 90
Deduct increase for passengers,			

Total decrease..... 14,668 92

The decrease in the receipts are, of course, entirely attributable to the shortness of the crops of last season. The receipts of flour were, however, 1,571 barrels more the past April than in the corresponding month of last year. There was a falling off of 4,695 tons of pork and bacon; 746 tons of lard and butter; and 3,483 tons of coal. There was, however, an increased receipt of 1,171 live hogs, and 376 live horses and mules—but a decrease of 993 live sheep and horned cattle.

The increased receipts from passengers, however, give decisive evidence of the prosperity of the road, and of the important advantages which have resulted from the completion of the Central Ohio Railroad, which makes that and the Baltimore and Ohio Railroad the great line of travel between the Atlantic and the West.

The following table shows the aggregate receipts for the four months of this year, ending with April, as compared with the receipts of the corresponding months of last year:

TOTAL RECEIPTS.			
	Passengers.	Freight.	1854.
January.....	58,675 40	219,998 74	
February.....	50,274 46	254,894 24	
March.....	76,300 12	312,997 43	
April.....	68,801 29	311,545 72	
	\$254,051 27	1,099,433 13	254,051 27
Total.....		1,353,484 40	
	Passengers.	Freight.	1855.
January.....	65,463 12	305,224 25	
February.....	52,574 87	164,328 16	
March.....	81,125 39	289,941 63	
April.....	81,961 98	287,052 22	
	280,665 37	1,049,999 47	280,665 37
Total.....		1,327,664 84	
Total 4 months, 1854		1,353,484 40	
" " 1855		1,327,664 84	
Decrease		\$25,819 56	

The increased receipts from passengers so far this year, compared with the corresponding months of 1854, were \$26,614 10; and

the decrease of receipts from freight was \$52,433 66; making the total decrease of receipts \$25,819 56—a result entirely caused by the shortness of last year's crops. A good crop of wheat and corn this year—and the indications in the West, all must rejoice to learn, are highly favorable—and the freight business on the road will be sure to go to what many now would regard an extravagant expectation.

#### Railroad views of the Country—Crops, Etc.

A trip eastward as far as the city of New York and into New Jersey, commenced on Friday week and ended yesterday, has given us an opportunity to make a few observations upon natural phenomena, which certainly would be interesting to our readers if they could be daguerreotyped to others as they were seen along the line of the New York and Erie, and Lake Shore and Southern Michigan and Northern Indiana Railroads. This mode of traveling has the disadvantage of rapidly mingling things together something after the fashion of the changes of a kaleidoscope, but the opportunity it offers of making comparisons between the aspects of remote points, is perhaps more than a compensation for indistinctness of observation.

A week ago to-day, as the trains left Dunkirk eastward, immense fields of floating ice lay white upon the surface of the Lake toward Buffalo, and seemed to blockade the whole eastern end of the Lake. Indeed, we were informed that a steamboat which started the day previous from Cleveland for Buffalo could not make its way through the ice, and was compelled to put back. This was a strong contrast to the pleasant impression left upon the mind the day previous by the fresh evidences of Spring as the rapid steam-horse tramped and clanked his way through Indiana, Michigan and Ohio. The grass was beautifully green; the wheat fields, without exception, looked strong and thrifty; occasional clumps of forest trees were in full leaf, and some trees and shrubs in full bloom. After leaving Dunkirk, a change in climate was very perceptible. All the way on to Jersey City, vegetation was at least a week later than in Northern Indiana, Southern Michigan and parts of Ohio bordering upon the Lake. This is not much of a wheat growing region, but the fields were numerous along the valleys of the Chemung and the Susquehanna Rivers, and they all looked well without exception. So far as we had an opportunity to observe in New Jersey, the prospects for all kinds of crops were never better. In the neighborhood of Newark, within a circuit of three or four miles, the winter rye looked unusually well, and so did the few fields of wheat which we had an opportunity to observe.

Yesterday and the day previous we again passed over the Lake Shore, Southern Michigan and Northern Indiana roads. Within the three or four days that had elapsed, the whole scene had changed as if by magic. A heavy refreshing rain fell on Thursday, brightening the whole face of nature. All through Ohio, Michigan and Indiana, on the line of the track, the wheat was in the most flourishing condition. Nothing apparently has occurred to mar its growth. Not a plant seems to have been winter-killed, it is thick and strong upon the ground, and a very fair breadth was sown. In the vicinity of Terre Coupee, Indiana, splendid fields of from thirty to fifty acres were to be seen as far as the eye could take in the



circuit of the prairie, and at many other points in Michigan and Indiana, the growing crop looked equally well, though the fields were generally much smaller. The fields in the vicinity of White Pigeon, Coldwater, and upon Sturgis Prairie deserve special attention. Altogether, we do not remember a season for many years when the prospects for a bountiful wheat harvest were so promising as they are at present, judging from what has lately come under our observation.

Southern Michigan and Northern Indiana promise splendidly for apples. The orchards in sight of the line are numerous, and yesterday, as we passed, were bursting out into full bloom, hardly a tree being without a thick crown of fragrant beauty, the harbinger of coming fruit. In Michigan, most of the trees look as if they had lately come into bearing, but through Indiana they are mostly well grown, and many of them come to their full capacity for bearing.

We have seen frequent paragraphs going the round to the effect that the peach trees had generally suffered from the cold weather, and we were not prepared to see as we did in Indiana that the trees were almost uniformly coming out into full bloom, being about as forward as the apple trees. We are inclined to the opinion that some of our cotemporaries have been premature in announcing the failure of the peach crop in their respective neighborhoods. The season has been backward, and it is likely that many orchards which have been killed off by editorial paragraphs, will yet give a good account of themselves when the harvest comes.

Forest vegetation is farther advanced between La Porte and the Calumet than at any other point on the route to the seaboard. Large maple, beech and other trees are there nearly in full leaf, their foliage being almost as ample as it is usual to see it on the 1st of June. We suppose the rapid advance of vegetation there, is to be accounted for from the fact, that the trees are well sheltered from bleak winds, and have a favorable Southern and Eastern exposure. We observe the same kinds of trees only a few miles off, without these advantages, which had but just begun to put forth their leaves.—*Chicago Press.*

#### Galveston and Red River Railroad.

In relation to the Galveston and Red River railroad, running from Galveston to Fulton, on Red river, the Texas Telegraph says, "the mail this morning brings the highly important intelligence that the contract for the first 25 miles of the Galveston and Red River road, (hence to Cypress creek) has been let to Mr. J. H. Welles, of the firm of J. H. Welles & Co., of the city of New York. This gentleman is not only a man of wealth, but a heavy and successful contractor, having built most of the New York and Erie road, and is now engaged in the construction of the "Delaware, Lackawana and Western," and "the Brunswick" road through Georgia. The agents assure the company that this section will be completed and in running order by the 20th of October, though the contract calls for the 20th of January next. Mr. Welles is expected to reach this city by the next steamer from New Orleans. This contract for 25 miles was let by the agents of the company, in lieu of one for 70 miles tendered the company, the terms of which it was equally within the power of the company to comply with, but the former gives the company a more certain control of the road, and

enables it to let out the remaining 45 miles on better terms and at a great saving to the stockholders.

With a railroad under contract and in course of construction from Fulton to Galveston Bay, and with the Illinois Central railroad complete from Cairo to the lakes, the Cairo and Fulton railroad is the only remaining link to complete the connection between the northern lakes and the Gulf of Mexico—the greatest railroad in the known world!

Let the predictions of croakers be what they may, even without the grant of lands, the Cairo and Fulton railroad will be built, and it will ever be a monument to the wisdom of its projectors and friends.—*True Democrat.*

JEFFERSONVILLE AND INDIANAPOLIS RAILROAD.—An election for directors of this company took place yesterday, and resulted in the choice of the following gentlemen. Those marked with a \* were in the old board:

John Zulauf\*, James Guthrie, Thomas J. Martin, John Tompkins, A. Gowdy and Vatable, of Louisville; James Keigwin\* and W. D. Beach\*, of Jeffersonville; Woods Mabury\*, of Edinburg; James S. McLellan, of Franklin; and W. O. Rockwood of Indianapolis.

Mr. Zulauf, who has been the president of the road during the past year, has proved himself an efficient officer, and we presume will be reelected.—*Ind. Jour.*, May 28.

NEW YORK CENTRAL RAILROAD.—The following is a statement of receipts from passengers and freight for the first four months of 1855, compared with the corresponding period of 1854.

	1855.	
	Passengers.	Freight.
January.....	\$169,540 58	*\$252,298 24
February.....	146,453 88	188,672 48
March.....	218,362 17	302,309 37
April.....	282,305 09	426,854 00

Total for first four months 1855.....\$1,934,905 81

	1854.	
	Passengers.	Freight.
January.....	\$161,233 87	\$174,128 27
February.....	145,020 02	170,083 28
March.....	205,044 75	224,233 15
April.....	251,786 54	250,119 29

Total for the first four months.....\$1,581,559 14

	INCREASE IN 1855.	
January.....	\$8,306 71	
February.....	21,372 60	
March.....	113,317 42	
April.....	136,734 71	

Deduct Mail receipts, (as those of 1854 were brought in at a subsequent period of the year),.....	\$343,246 67
Total increase.....	\$303,146 67

\* This includes \$19,912 50 for Mail Service.

† This includes \$20,187 50 " " "

\$40,100 00.

#### Earnings of the Chicago and Rock Island Railroad.

The following are the earnings of this road for April:

For Transportation of persons.....	\$75,777 37
For Transportation of property.....	40,745 26
For Express and Mails.....	2,800 00

Total.....	\$119,322 63
Earnings for April, 1854.....	\$6,911 95

Increase.....	\$32,390 65
May 4, 1855	J. L. ELWOOD, Sec'y.

#### Improvement of St. Clair Flats.

A meeting of the Buffalo board of trade was held yesterday morning, to receive communications from the Canadian government in relation to its co-operation in the measures to improve the navigation of the St. Clair Flats.

In the absence of the president, John G. Deshler called the board to order.

The secretary then read the communications which are as follows:

Public works, Quebec, }  
May 12, 1855. }

SIR:—I am directed to transmit to you, for the information of the board of trade of Buffalo, a copy of an order in council, dated the twenty-fifth of last April, upon a report from this department on the subject of the improvement of the "St. Clair Flats," referred to in your letter of the tenth ultimo, (addressed to the Hon. the Provincial Secretary, and transferred by him to this office.)

I have to request that you will bring the matter before the board of trade at their next meeting, and that you will apprise me, for the information of the commissioners of public works of Canada, what steps the board consider best to be taken in the matter, and most likely to tend to the prompt prosecution of the work, in accordance with the conditions of the order in council.

I have the honor to be, Sir,

Your obedient servant,

THOMAS A. BEGLY, Secy.

John J. Henderson, Esq., Secy. Board of Trade, Buffalo, U. S.

Copy of a report of a committee of the Hon. the executive council, dated 25th April, 1855.—approved by his excellency the governor general in council on the same day.

On a report dated 17th inst., from the chief commissioner of public works, on a letter from the secretary of the board of trade of Buffalo, representing the inconvenience and loss annually sustained by the Canadian as well as by the United States mercantile interests, in consequence of the state of the channel through Lake St. Clair.

The chief commissioner states that the evils complained of by the board of trade of Buffalo are not overrated. That the channel hitherto used is the northern one, which is very circuitous, contracted and shoal. That a fleet of vessels may frequently be seen in it, either wind-bound or stopped by want of water, causing great detention and expense in towage, transshipment and lighterage, to such an extent in fact, that it is only to be wondered at that those states which have hitherto been so much more interested in the navigation of Lake St. Clair than Canada, have not had the improvement now proposed long since carried out.—that this may, in some measure, be accounted for, by the fact that, although it is possible to deepen the American channel, still it would remain very circuitous, and be subject to fill up after being dredged.

The chief commissioner presumes that the channel proposed to be improved, and called in the letter of the board of trade "The South Channel," is that known in this province as the "Middle or Walpole Channel," the upper portion of which is the boundary between the States and Canada, and the lower part is through Canadian territory solely. That is much the shortest, most direct, and, continuing the line of the river above it, would have the benefit of "scour" to keep it open.

That until last year the maximum draft of water that a vessel could carry through the



Welland canal, was from 8 feet 9 inches to 9 feet. There was no reason therefore to induce the Province to embark in the expenditure of improving the channel in question; but now that 10 feet draft is obtained in the channel, it is very important that all obstructions to vessels loaded to that depth, should be removed.

The commissioner states that the application is not as explicit as it is desirable it should be, as to the depth and breadth to which it is proposed to open the channel, as well as upon other points; but, taking it for granted that these matters of detail can be mutually and satisfactorily decided on, he recommends that Canada should co-operate with the state of New York in the contemplated improvement on the following conditions:

That the work be done under contract, between such parties as the board of trade of Buffalo may fix upon, and the department of public works of Canada.

That that board, in their corporate capacity, or say two or three of the respectable merchants of that city, become securities for the due performance of the contract, and the opening of the channel to the satisfaction of the department of public works.

That the amount to be contributed by Canada shall be one-third of the cost, but in no case to exceed the sum of five thousand pounds, and

That two-thirds of the expense be first paid by the Buffalo board of trade, and that Canada shall not be called upon to pay her quota, until it is fully ascertained that the remaining third, (not exceeding the sum already stated) shall be sufficient to complete the work.

The chief commissioner urges the adoption of this last condition, as he is of opinion that the ultimate cost of the work is understated.

The committee recommend that the suggestions contained in the above report be approved and carried out.

WM. H. LEE, C. E.

On motion of S. H. Fish, the communications were received and referred to the Executive committee of the St. Clair convention, and the secretary directed to acknowledge their receipt.

The following resolution was then offered by S. H. Fish, and adopted.

*Resolved*, That this board of trade recommend to the executive committee of the St. Clair Flats' convention, the appointment of a committee to proceed to Washington to obtain permission of the secretary of the treasury to use the government dredges now lying at Chicago, Detroit and Erie, to improve the navigation of the St. Clair Flats.—*Buffalo Democracy*.

**SOUTHERN RAILROADS.**—It appears by the report to the officers of the Memphis and Charleston Railroad, which is two hundred and eighty-six and three-quarter miles in length, is expected to be ready for business through the whole route by next November. The entire cost of the road is estimated at \$4,940,263, or \$15,228 per mile, for road construction, and \$17,228 per mile for construction and equipment. The Charleston papers are also arguing the construction of a sea-board route from Charleston to Savannah, by which one hundred and nine miles will be gained compared with the present route of travel from Southwest Georgia and Florida, &c.—*Baltimore American*.

## Miscellaneous and Mechanical.

### Patents in Europe.

In our issue of April 26th, we commenced the publication of an extract from a recent work on Patents and Patent Laws, of the Laws relating to Patents in Europe. We find on examination, and from the correspondence of our friends, that some of the information was erroneous, chiefly from the fact that it was the old laws and not the amended ones which were contained in the book. We publish to-day, a letter from a correspondent in New York, which contains more reliable information, and shall hope to give our readers the true state of facts.

New York, May 2d, 1855.

**EDITORS RAILROAD RECORD:**—I was very much surprised to read in your Record of the 26th ult., page 135, so much absurdity about "Patents in Europe."

Great Britain never made any distinction whatever about Inventors, nor enquired in what country they lived or were born, "*at the time of making application*," or *at any other time*. A description is, and always was required, and a most philosophical one too, even it were only the title, as formerly, for it must cover all the claims; but, now a description is superadded, unless a complete specification is preferred to be entered.

"*England, Ireland and Scotland*," do not constitute three distinct kingdoms, "in respect to patents;" but they are one, and one patent covers the whole. I have no knowledge of the Lord Chancellor ever having extended the time, from 6 to 7 months, to enroll the specification after the patent is granted, and believe that he has never done so, in fact, I am pretty sure of it; at all events it is not and never has been a general practice.

The cost of the Patent is quite fabulous, as the "*outrage upon Ireland*" is ridiculous. A better and more Hibernian explanation is, that, a patent for Ireland being (comparatively) good for nothing, is the reason why more was charged for it, than for England or Scotland. The additional charges are mostly made by rascally agents, but may possibly sometimes arise from stupid Inventors; The Patent Laws now in force in England, are those of 1852, and the whole cost of the fees for the United Kingdom and the Channel Islands is £25 14 9 for three years, £50 more to be extended to seven years, before the expiration of the three years; £100 in like manner for 14 years, i. e., £175, or about \$850 altogether. I have only looked further into "France" and "Belgium," which are erroneous also, probably from being behind the time. Belgium patents are granted for 20 years under the laws of May, 1854.

Yours truly,

THOMAS PROSSER.

### Winslow's Compound Rail.

We have recently passed over two pieces of railway laid, with the compound rail,—one on the Marietta Railway, and the other on the Little Miami. It is evident to us, that this rail possesses a great superiority over the common kinds. Indeed, the difference is so decided, that we commend it to the attention of all railway companies. It has two great advantages; one of giving greater smoothness in motion, and the other of being safer and more lasting. The rail is in *two pieces*,—the *joints* of which are at two places; so that, in fact the rail is *continuous*, and not liable to the great danger of rupture at the joints.

We say this much in its favor from actual observation, and a belief, that such improvements are of great benefit to the public.

This kind of rail is more expensive at first; but will prove economical in the end, for it will wear better.

### On the Properties of Iron.

WITH THE MODES OF ENSURING SUCH AS MAY BE REQUISITE.

BY T. H. LEIGHTON.

Iron is the most useful, and, as a general rule, the most generally and largely distributed of all the metals. As an article of commerce, it is known in a variety of forms, each possessing peculiar properties differing widely from the others, while chemical analyses exhibit but extremely slight variations in the compositions of the whole. This has been the cause of much perplexity, especially to ironmasters, who have placed reliance on the reports of the mere chemists, and many erroneous notions have long prevailed, as sanctioned by high authorities. The constant failure in all attempts to apply chemical science to the manufacture and working of iron, has given cause to practical men to exult at the superiority of practice, and to discard the aid of science altogether. The following concise remarks are submitted as the result of deep study, after protracted and laborious investigations into this most interesting and important subject:—

Manufactured iron may be divided into four sections or species:—

**Section 1. Pig or Cast-Iron.**—Iron is in this state brittle and inflexible when cold—fusible at a high heat, and when melted, is so fluid that it may be cast into every variety of form: it will not bear hammering, so cannot be wrought into any form in the forge. Its analysis is given as iron, with a small percentage of carbon, and a little earthy matter, or impurities.

**REMARK.**—The carbon in pig-iron is in a state of cyanogen, and it should, therefore, be represented as iron alloyed with a portion of cyanuret and some earthy matters. This is a fact, although chemists may not be able to detect the presence of cyanogen in their laboratories. The simplest mode of insuring good foundry pig-iron is to prolong the operation of smelting, or, in furnace management parlance, to reduce the burden.

**Section 2. Malleable, or Bar-Iron and Railway Bars.**—In this state iron is flexible when cold, infusible by the heat of ordinary furnaces; malleable, so that it can be worked by



the hammer into every variety of form when moderately heated; it has generally been supposed that in converting pig into malleable iron, the carbon was merely burnt off, and the iron brought to its simple metallic state; but in the operation, a large quantity of cinder is produced, which has generally hitherto been regarded as impurities, or scoria, working out of the iron. This has been declared by some eminent chemists to be silicate of iron. Now, instead of cinder being an impurity, it is really a most important alloy of iron, consisting of iron, oxygen, and carbon, imparting to malleable iron all its good working qualities, particularly the property of welding, and its great pliability at a moderate heat. When carbon has been long exposed to a high heat, more particularly in combination with iron, it resembles silicon so nearly in many respects, that an expert chemist might easily mistake the one for the other.

A new mode of converting pig-iron into the malleable state is submitted, which is to granulate melted metal, and expose it to the action of steam at a high heat: then to mix it with a due proportion of peroxide of iron and carbonaceous matter. By regulating the quantities of these materials, any requisite property may be imparted to bar-iron, to fit it for any particular purpose to which it is intended to be applied. This mixture is to be brought to a welding heat in a furnace similar to a puddling furnace, and balled up; it may then be worked into the requisite form by the existing mechanical operations.

**Section 3. Steel-Iron, Wire, and Tin-Plates.**—This is, or ought to be, iron in its pure, simple metallic state. It is very pliable when cold, infusible in the heat of ordinary furnaces, and possesses but little malleability. It is at present prepared by a series of expensive and wasteful operations, first forming a large quantity of cinder, and then expelling it by the application of intense heat and great power. It is proposed to form this species of iron in a similar way to the preceding, or section 2, with the exception of using no peroxide of iron, and only a small portion of carbon, mixed with the granulated metal, air being thrown into the working bed of the furnace to assist the welding.

**Section 4. Steel.**—This is the most valuable form of iron, or, at all events, it realises the highest price as an article of commerce. To set aside at once all mystery as to the composition of steel, it is merely a mixture of pure iron and carbon. These two bodies do not unite chemically together by themselves. A series of simple and economical operations has been devised for combining iron with any proportion of carbon by means of oxygen, and then for abstracting the oxygen from this compound by the application of free carbon at a high heat. By regulating the proportions of the materials, any quality of steel may be produced, suitable to all the purposes for which it may be required, from a coach spring to a lancet—an intimate and uniform admixture of carbon with iron, and carbon being in the most minute state of division, and near approximation to diamond, constitutes the excellence of steel.

**Brief Summary.**—Section 1, Iron combined with carbon by means of nitrogen.—Section 2, Iron combined with carbon by means of oxygen.—Section 3, Iron in its simple metallic state.—Section 4, Iron amalgamated with diamond dust.—*Am. Mining Chron.*

#### CURIOSITIES OF SCIENCE---COMBUSTION.

During a recent lecture, by Prof. Faraday, at the Royal Institution, London, a piece of pure iron, peculiarly prepared so that its particles might present a large surface to the action of the oxygen in the atmosphere, was ignited, and continued to burn like tinder. Some iron filings and gun-powder were mixed together, and sprinkled into the flame of spirits of wine burning on a plate, when the iron filings caught fire and burnt in bright sparks, whilst the gunpowder passed through the flame without igniting, and the quantity that fell on the plate was afterwards dried and exploded. Lead prepared in a similar way was shown to be still more inflammable, or it caught fire in a beautiful flame when exposed to the air. Prof. Faraday stated that lead is nearly as inflammable as phosphorus, and he explained the cause of its not burning in ordinary circumstances to be that the solid product of combustion forms a film that prevents contact with the oxygen, and the conducting power of the other parts of the metal draws off and dissipates the heat. He pointed out the admirable arrangements by which these combustible properties of the metal are kept in proper control, and bodies that are really so inflammable are made to serve as strong resisters of combustion. Prof. Faraday next explained the distinction between combustion and explosion, which consists simply in the different rapidity of the two actions, for during the former process the combustible and the supporter of combustion are brought together by degrees, as in the flame of a candle, but in explosions they are both intimately mingled together, and can be brought into action at once. A mixture of hydrogen and oxygen gases, in the proportions in which they are combined in water, was adduced as an example, and a soap bubble blown with those gases was exploded, as an illustration. The cause of the explosion of gun-powder and of other substances that explode without access of air, was shown to be owing to the large quantities of oxygen in a solid state that enter into the composition of such explosives, and being intimately mixed with the combustible, afford an instantaneous supply of the supporter of combustion, which enables them in some instances to burn under water. This was illustrated by several striking experiments including the burning of a marine fuse. Prof. Faraday said, that though animal heat is not, generally speaking, caused by combustion, yet the analogy between the processes is so close, that he could not with satisfaction to himself conclude his lectures on the chemistry of combustion without alluding to the subject, and showing the nature of the changes that are going on in the lungs during respiration. He then arranged some experiments to prove the absorption of carbonic acids in the lungs, and he presented on a plate a mass of charcoal weighing 3 lbs., as representing the quantity that passes from the lungs of a man during every 24 hours. The volume of carbon in the atmosphere, though it contains only one per cent. of carbonic acid, is, he stated, greater than all the carbon that is stored in coal strata in the earth, or spread on the surface of the globe in vegetation.—*Scientific American.*

PEAS and OIL CAKE are the richest of all vegetables for food, and approximate nearly to animal flesh.

**SMEETING COPPER ORES.**—The most abundant ores of copper are pyrites, or a mixture of sulphuret of copper, and earthy matters. The principle of smelting copper depends on iron having a stronger attraction for sulphur and oxygen than copper has. When copper ores are first exposed to heat, a portion of sulphur is driven off, and the metals become partially oxidised. On fusing, the proto-sulphuret of iron acts as a flux for the earthy matters, which float on the surface of the denser portion of the fused mass, and are drawn off as slag, with an iron rake. By a repetition of similar operations, the remainder of the iron and sulphur is got rid of, and the copper is left comparatively pure. This mode of operating is liable to several objections; the whole of the sulphur is wasted, a great part of which passing into the atmosphere, occasions much nuisance and damage around the works. The mode of separating the slag by skimming, is defective, as copper must either be drawn away with the slag, or slag left with the copper. There is no certainty by this process of obtaining copper in an actual state of purity. Various modifications of this plan have been proposed as improvements, but the best mode of obtaining copper in a state of purity is by what may be termed the wet process, which consists in converting the metallic sulphurets into sulphates, and precipitating the copper in solution by means of iron. This is not a new process, but some improved modes of operating are recommended. The raw sulphates should be first mixed with a portion of oxidised metals, and the mixture placed in a bed, so arranged that warm air may be forced upwards throughout the entire mass, while water is occasionally thrown over it to carry off the sulphates in solution as they form. Granulated metallic iron may be prepared by treating hematite iron ore, or any artificial oxide of iron, with carbon, steam, and moderate heat. Tanks or vats should be prepared, having an arrangement at bottom for distributing liquids uniformly over the entire area. The vessels are to be filled with granulated iron, and the mixed solution of sulphate of iron and sulphate of copper run in from such an elevation that it may rise through the iron by ascending filtration, depositing copper, and passing off at top as an entire solution of sulphate of iron. This is to be continued until the whole of the iron is converted into copper, when it is to be removed and purified by fusion, in a furnace designed expressly for the purpose.—*New York Railroad Journal.*

**THE BUTTER TREE.**—On the banks of the Niger, in Africa, they have a tree called the Shea, from which excellent butter is obtained. The tree is like our oak, and the fruit somewhat resembles the Spanish olive. The kernel of the fruit is dried in the sun and then boiled, and the butter thus obtained is whiter, firmer and of a richer flavor than that produced from the milk of the cow, besides keeping sweet a year without salt. The growth and preparation of this article is one of the leading objects of African Industry, and constitutes the main article of their inland commerce. If present prices continue, we suggest that our dealers import a supply of vegetable butter from Africa. Or may be the tree itself can be acclimated, and every man have a butter tree in his yard.—*Springfield Republic.*



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHARES.	OFF'D.	ASK'D.
Alabama and Tennessee.	1st mortgage, convertible in 1872.	7 1872					
Baltimore and Ohio.	Transferable. Taxed.	6 1885	79 1/4		100	44	44
Do do	Coupons. Not Taxed.	6 1875					
Do do	" "	6 1880					
Do do	" "	7 1860					
Do do	" "	6 1885					
Bellefontaine and Indiana.	1st mortgage, convertible.	6 1866	98		50	42	
Buffalo and Penn. State Line.	1st mortgage, not convertible.	6 1866					
Chicago and Rock Island.	1st mortgage, convertible.	7 1870	94	95		83	89
Chicago and Mississippi.	1st "	7 1862					
Do do	2d "	7 1874	65				
Chicago and Aurora.	1st "	7 1866					
Cincinnati, New Castle and Mich.	Real Estate.						
Cleveland, Columbus, and Cincinnati.	1st mortgage, convertible.	7 1859			100	103 1/4	106
Do do	No mortgage, convertible.	7 1855					
Cleveland and Mahoning.	1st mortgage.	7 1861			100		
Cleveland, Painesville, and Ashtabula.	2d " not convertible.	7 1861					
Do do	1st " convertible.	7 1860				40	41
Cleveland and Pittsburgh.	1st " 2d sec. convertible.	7 1873					
Cleveland and Toledo.	1st mort. not conv. 73.	7 1863	74 1/4	76	50	76	77
Cleveland, Zanesville, and Cincinnati.	1st mortgage " till 1855.	7 1867	75	80		73 1/2	73
Cincinnati, Hamilton and Dayton.	2d mortgage.	7 1868	83	85			
Do do	1st mortgage, real estate, conv.	10 5 & 10 y's	27	30			
Cincinnati, New Castle and Michigan.	" " " "	8	44 1/2			10	15
Cincinnati Western.	2d "	7	66	68		42	42
Cincinnati, Wilmington and Zanesville.	Real Estate.	8	31 1/2			13	15
Cincinnati, Indianapolis and Chicago.	1st mortgage, convertible.	7 1862	75	76			
Cincinnati and Chicago.	2d "	7	60	61			
Columbus, Piqua and Indiana.	1st mortgage, convertible.	7 1859					
Do do	2d " " till 1862.	7 1863	62	65	50	93 1/2	100
Columbus and Xenia.	Income.	10	73	75	50	25	30
Covington and Lexington.	1st " " "	7 1867			50	20	22
Do do	1st " " "	7 1862					
Dayton and Michigan.	1st " " "	7 1864	26	30			
Dayton and Western.	1st mortgage.	7 1862		60	25	25	27
Dayton, Xenia and Belpre.	1st mort. guaranty Mich. S. R. R.	7 1862					
Eaton and Hamilton.	1st mortgage.	7	80	81			
Erie and Kalamazoo.	1st " " "	6					
Evansville and Crawfordsville.	Pledge of second section, convertible.	10 1853-6	92 1/4		100	90	96
Frankfort and Lexington.	1st mort.	7	60	63	50	18	25
Franklin and Warren.	1st mortgage, not convertible.	6 1875	75 1/4	80	100	96	100
Galena and Chicago Union.	Freeland.	7 1866	73 1/4	74			
Hillsboro and Cincinnati.	1st mortgage, convertible.	7 1866	63 1/2	75	50	45	50
Illinois Central.	1st " " "	10 1857		80	50		
Do do	2d " " "	7 1860-1		75	25	48	50
Indiana Central.	Dividend.	7	63	64	50	57	53
Do do	1st " not " "	7 1861			50		
Indianapolis and Bellefontaine.	1st " " "	7 1867			50	15	17
Indianapolis and Cincinnati.	Real Estate.	10	72	73		12 1/2	
Indianapolis and Lafayette.	8 1864		77	82	100		
Jeffersonville.	1st mortgage, not convertible.	6 1863			50	99	101
Junction (Ohio).	" " " till 1855.	7 1861					
Do do	" " " unconvertible.	8 1858	93 1/4		100		
La Crosse and Milwaukee.	1st mortgage, convertible.	7 1873					
Little Miami.	1st mortgage, convertible till 1855.	7 1853-6		75	50	33	35
Do do	2d " " "	7 1866		75			
Do do	Dividend.	7 1860		75			
Louisville and Nashville.	1st mortgage, convertible after 1853.	6 1861			50		
Lyons, Iowa, Central.	Domestic Bonds.	7 1863	57 1/4	60	50	25	30
Mad River and Lake Erie.	2d " " "				50	25	30
Do do	1st " " "						
Madison and Indianapolis.	1st mortgage, convertible.	6 1873			50		
Marietta and Cincinnati.	No mortgage, convertible.	8 1860	97			83	84
Do do	" " " "	8 1855-6					
Hillsboro and Cincinnati.	1st " not " "	8 1857-8					
Mayville and Big Sandy.	1st " " " "	7 1860-90		100	101 1/2	103	
Mayville and Lexington.	1st mortgage 6s. 1884	8 1862					
Memphis and Charleston.	" " " "						
Michigan Central.	mortgage on 1st section.	10 1858-62			50	20	20
Do do	1st " on other section, convert.	8 1864-75					
Michigan Southern.	1st " convertible.	6 1873					
Milwaukee and Mississippi.	1st mortgage, not convertible.	7 1867	101 1/2	102		93 1/2	96
Mobile and Ohio.	2d " convertible.	7 1871	84 1/2	85	100	50	50 1/2
Nashville and Chattanooga.	1st " " "	7 1883	94 1/2	95			
New Albany and Salem.	1st mortgage, convertible.	8 1873					
Do do	1st " not convertible.	7 1861	79			97	98
New Castle and Richmond.	1st " Goshen line.	7 1868	85	86			
New York Central.	Construction Bonds.						
New York and Erie.	1st mortgage, convertible.	7 1861	61		50	24	30
Do do	2d " " "	7 1870	66	60			
Do do	1st " " "	7 1865			50		
Northern Cross, Ill.	Income. No mortgage, convertible.	7 1872					
Northern Indiana.	1st mortgage, convertible.	7 1866					
Do do	2d " " "	7 1873					
Do do	1st mortgage, convertible till 1860.	6 1880			50	43 1/4	40
Ohio Central.	1st " " "	7			25	30	
Ohio and Mississippi.	1st " " "	7 1872					
Ohio and Indiana.	1st " " "	7 1860					
Ohio and Pennsylvania.	2d " " "	10 1852-7			50		
Do do	1st " convertible coupons.	7 1861					
Pacific, Mo.	1st mortgage, convertible.	7 1865					
Pennsylvania.	1st " " "	8 1865	75 1/4				
Parkersburg (or Northwestern Va.).	1st " " "	6 1886					
Pennsylvania.	1st mortgage, convertible till 1860.	6 1880					
Peru and Indianapolis.	1st " " "	7					
Rock River Valley Union.	1st " " "	7 1872					
Sandusky and Mansfield.	1st " " "	7 1860					
Do do	2d " " "	10 1852-7					
Scioto and Hocking Valley.	1st " " "	7 1861			50		
Southwestern, Tennessee.	1st mortgage, convertible.	7 1865					
Springfield and Columbus.	1st " " "	7 1863-72					
Stevensville and Indiana.	2d " " "	8 1865					
Terre Haute and Alton.	1st " " "	6 1886					
Do do	1st " " "	7 1863	87	88	50		
Do do	2d " " "						
Do do	Guar. of C. C. & C.	1883					



## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	PRE.	OFF'D.	ASK'D
U. S. Loan.....	6	18 6	162	165
Do.....	6	18 6	110	113
Do.....	6	18 6	116 1/2	118
Do.....	6	18 6	120	122
Do (int. ceased July 1) 5	5	18 6	133	132
Do Coupons.....	6	18 6	118	118
Do.....	6	18 6	118	118
Do.....	6	18 6	161	161

## STATE.

Alabama.....	5			
California.....	7	1870	91 1/2	92
Arkansas.....	6			94
Georgia.....	6		93	99 1/2
Do.....	7			
Illinois Canal Bonds.....	6	1860		
Do do registered.....	6	1860		
Do do.....	6	1847		
Do do registered.....	6	1847		
Do do Internal Imp't.....	6	1847	94	95
Do Interest d.o.....	5		64	64
Indiana.....	5		87 1/2	84
Do.....	5 1/2		52	52 1/2
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			

Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	97	
Do.....	5			

Louisiana.....	6		91 1/2	92
Michigan.....	6		97	98
Missouri.....	6		93 1/2	95
New York.....	6	1860-61	108	110
North Carolina.....	6		99	100
Ohio.....	6	1856	101 1/2	
Do.....	6	1860	104 1/2	105
Do.....	6	1870	111	112
Do.....	6	1875	104	106 1/2
Do.....	5	1855		

Pennsylvania.....	6			
Do.....	5	1870	87	90
Tennessee, long loan.....	6	1890	91	95
Do Coupons.....	5			
Virginia Coupons.....	6	1886	97	98

## CITY SECURITIES.

Albany.....	6	1871-81	97 1/2	
Allegheny.....	6	1875-7	77	
Baltimore.....	6	1870-90	91 1/2	92
Do.....	5	1865		
Boston Bonds.....	4 1/2	1860		
Chicago.....	6	1873-7	92 1/2	95
Cleveland.....	6	1879	101 1/2	102 1/2
Cincinnati.....	6	1866-92	89 1/2	90 1/2
Do.....	6	1897		
Do.....	5	1884		
Do W. W.....	6	1865		
Covington, (to Bridge Co.).....	7		72 1/2	
Lawrenceburgh, Ia.....	6			
Louisville.....	6	1880	84	89
Memphis.....	6	1882		
New York.....	7	1857	100 1/2	
Do.....	5	1858-00	95	95
Do.....	5	1870-5	97	100
Do.....	5	1890		
Philadelphia.....	6	1876-90	87 1/2	88
Pittsburgh.....	6	1869-78	75 1/2	76 1/2
Do coupons.....	6	1883		
Racine.....	7	1873	61 1/2	63
St. Louis.....	6	1870	79	80
Wheeling.....	6	1872	70	72

## COUNTY BONDS.

Bourbon, Ky.....	6	1881		
Darke, O.....	7			
Fairfield, O.....	7	1862		
Fayette, Ky.....	6	1881-3	75	75
Hancock Co.....	7		79	80
Mason, Ky.....	6	1881	69	66 1/2
McCracken Co. Ky., endorsed by New Orleans and Ohio R. R.	6	1866	76	77
St. Louis.....	7	1871		

## BANKS.

American Exchange Bank, N. Y.....	105 1/2	
Ohio Life Insurance and Trust Co.....	85 1/2	90
Washington Insurance Co.....	85	
City Insurance.....	70	
Cincinnati Insurance Co.....	84	
National Insurance.....	75	80

## KENTUCKY.

Bank of Kentucky and Branches.....	100	
Northern, and Branches.....		
Southern, and Branches.....		
Bank of Louisville.....	93	
Kentucky Trust Co.....		
Farmers' Bank of Kentucky.....	105	106
Commercial Bank of Kentucky.....		

## INDIANA.

State Bank and Branches.....		
TENNESSEE.		
State Bank and Branches.....		
Union.....		
Planters.....		

## LAND WARRANTS.

160 acre warrants.....	Off'd.	Ask'd.
80 acre warrants.....	\$176	88
40 acre warrants.....		44

## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	1/2	3/4
Boston.....	Sight.....	1/2	3/4
Philadelphia.....	Sight.....	1/2	3/4
Baltimore.....	Sight.....	1/2	3/4
New Orleans.....	Sight.....	1/2	3/4
England.....	Sight.....	110	110 1/2

## SPECIE.

GOLD.		
California clean, P. oz.....	\$17 50	@ \$17 65
Spanish Doubloons.....	15 00	@ 16 00
Patriot Doubloons.....	15 00	@ 15 80
Sovereigns.....	4 85	@ 4 87
Guineas.....	5 09	@ 5 00
American, new.....	1 00	@ 1 00
American, old.....	1 06	@ 1 06
Portuguese.....	1 00	@ 1 00 1/2

## SILVER.

American Dollars.....	1 04	@ 1 04
American Halves.....	1 04	@ 1 04 1/2
Spanish Dollars.....	1 12	@ 1 13
Spanish Quarters.....	1 00	@ 1 01
Mexican Dollars.....	1 05 1/2	@ 1 06
Five Franc pieces.....	9 1/2	@ 9 3

## CINCINNATI STOCK SALES.

AT THE STOCK BOARD.

## MERCHANTS' EXCHANGE.

## AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending May 23, 1895.

\$3000 Ohio & Miss. R. R. Co., 2d mort. 7 per cent. Bonds.....	56
5000 Cov. & Lexington R. R. Co., 2d mort. 7 per cent. Bonds.....	63
2000 Cin. Wil. & Zanesville R. R. Co., 2d mort. 7 per cent. Bonds.....	66 1/2
1000 Little Miami R. R. Co., unconvertible Bonds due in 1898.....	93 1/2 & int.
1600 Hillsboro & Cin. R. R., 7 per cent. 1st mort. Bonds.....	60 & int.
5000 Day, Xenia & Belf. R. R., 7 per cent. 1st mort. Bonds.....	26 "
1000 Cin. Ham. & Day. R. R. 7 per cent. 2d mort. Bonds.....	83 "
350 Ham. & Day. R. R., 7 per cent. Div. Scrip.....	82 "
29 Shares Indianapolis & Cin. R. R. Stock.....	57 1/2
20 " Cin. Harrison & Ind. ".....	7
275 " Cincinnati & Chicago ".....	10 1/2 (& int.)
100 " " " ".....	11 "
244 " " " ".....	12 "
130 " " " ".....	12 1/2 "
50 " " " ".....	12 1/2 "
12 " " " ".....	13 "
34 " Little Miami ".....	99 "
20 " Ohio & Mississippi ".....	24 "
15 " Columbus & Xenia ".....	93 1/2 "
10 " Cin., Ham. & Dayton ".....	73 1/2 "
25 " Cin., Wilming. & Zans. ".....	42 1/2 "
20 " Covington & Lexing. ".....	25 "
40 " Marietta & Cincinnati ".....	25 "
80 " Eaton & Hamilton ".....	27 1/2 "
35 " Farmers' Bank of Kentucky ".....	105 "

## Monetary and Commercial.

In the week, which has just ended, there has been rather more stringency in the money market, than prevailed previously. This simply means, that it is more difficult to obtain discounts. With men of property and integrity, money can be obtained; but, will vary in price, according to the standing of the parties and the terms of payment. The general price of money, is about 10 per cent, though, there are many needy borrowers who pay higher than that.

Railway Stocks and Bonds are higher, than they were last winter; but are still greatly depressed, especially the unfinished roads. Some of them promise to be very productive; yet, as they now yield nothing, they are sold less than half, and in some instances less than one fourth their value. Several of these will be finished in another year, when those who have had means and sagacity enough to buy them, will find them rise rapidly on their hands.

The general aspects of business are decidedly better. In that respect, we have room to congratulate the community. The spring business has been quite fair. Manufacturers are at work, though under reeled sails. Merchants are not pressed, and the country demand is good.

On the whole, the business community has settled into a calmer state; but one which has the marks of health and stability.

**SOLDERING.**—Mr. W. J. Steavenson, of New York, has obtained a patent for soldering cans expeditiously, and which, by persons of but small experience or practice, deserves farther notice. It is intended only for soldering straight seams, such as the sides of cans or gutters. The can or tin pipe to be soldered is placed upon a mandril, which is divided longitudinally by a line running slightly oblique to its axis. This is for allowing the mandril to be contracted after the seam has been soldered, to allow the can or article to be easily removed from it. The mandril is secured in the jaws of a clamp, the upper ends of the said jaws being so formed, that when brought together they form a channel in line with the same to be soldered, so as to receive the solder and retain it where its presence is required when melted. By this method of confining the solder, a neat bead is formed on the outside of the can. A strip of wood is placed in the mandril under the seam of the joint, which, being a good non-conductor, makes the solder retain its heat longer, and allows of it flowing into the seams more freely.

**RAILROAD IRON.**—The Cleveland and Mahoning railroad company have purchased 5,000 tons of railroad iron in the East, which is now being freighted on the Central railroad.

The Brady's Bend iron works are filling an order for 11,000 tons railroad iron, for the Illinois Central railroad.—*Pitts. Jour.*

**THE SAUT STE-MARIE CANAL.**—We are informed that this canal, connecting Lake Huron and Superior, was fit to receive boats on the 18th of April.

**COAL MINES ON FIRE.**—A very extensive coal mine in Ballard county, in Kentucky, is on fire. In November last some trespassers in the Mississippi bottom fired the woods, which extended to the bluffs, and the coal mine took fire; since then it has been steadily burning.

*Quarterly Rates of Postage, when paid in advance, on Newspapers and Periodicals sent from the office of publication to actual subscribers.*

Weekly newspapers (1 copy only) sent to actual subscribers within the county where printed and published, free.

Newspapers and periodicals not exceeding 1 1/2 oz. in weight, when circulated in the State where published, 3 1/2 cents.

Newspapers and periodicals of the weight of 3 oz. and under, sent to any part of the United States, 6 1/2 cents.

## DIRECTIONS.

1st. Publishers of newspapers and periodicals may send to each other from their respective offices of publication, free of postage, one copy of each publication; and may also send to each actual subscriber, enclosed in their publication, bills and receipts for the same, free of postage.

2d. Quarterly payments in advance may be made either at the mailing office or the office of delivery. When made at the mailing office, satisfactory evidence of such payment must be exhibited to the postmaster at the office.

## THE LAW OF NEWSPAPERS.

1. Subscribers who do not give express notice to the contrary, are considered as wishing to continue their subscriptions.

2. If subscribers order the discontinuance of their papers, the publisher can continue to send them until all arrearages are paid.

3. If subscribers neglect or refuse to take their papers from the office to which they are directed, they are held responsible till they settle their bill, and order the papers discontinued.

4. If any subscribers remove to another place without informing the publisher, and their paper is sent to the former direction, they are held responsible.

5. The courts have decided that refusing to take a newspaper from the office, or removing and leaving it uncalled for, is prima facie evidence of intentional fraud.

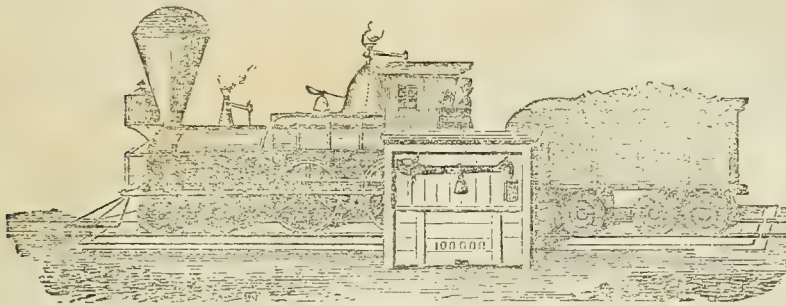


ISAAC RIGDON.

EDWARD C. RYLAND.

WM. HUDDART.

## OHIO SCALE WORKS.



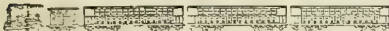
**Rigdon, Ryland & Co.,**  
Nos. 4 & 6 West Second street, between Main and Walnut sts.,  
CINCINNATI.

WE are now prepared to furnish **Railroad Track and Depot Scales** of all sizes, which we warrant in every respect equal to any manufactured in the United States.  
Being practical workmen ourselves, we feel confident that we can furnish the West and South with as good an article and cheaper than can be bought East.  
Cincinnati, June 29, 1854.

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.

LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNYS & PECK,  
Louisville, Ky.

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

LOCOMOTIVES OF SUPERIOR QUALITY.

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch  
Jy. 27. RICHARD NORRIS & SON.

## NUGENT'S COLLEGE

OF

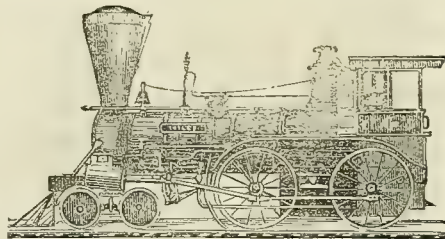
ENGINEERS &amp; MECHANICS,

PUBLIC SQUARE, CLEVELAND, OHIO.

C. NUGENT, C. E., Principal.

The design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
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## LOCOMOTIVE WORKS.



## NILES &amp; CO.,

CONGRESS STREET, CINCINNATI,

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shuffling, &c. &c.  
feb. 13 1855 6m.

## Lightner's Patent Axle Boxes for Railroad Cars

The attention of Railroad Managers and others is called to this valuable improvement in

## AXLE BOXES.

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the best of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

## PROSSER'S PATENT

## Lap-Welded Iron Boiler Tubes.

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Awning Frames, Leaders, etc.

Brass Boiler Tubes.  
Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

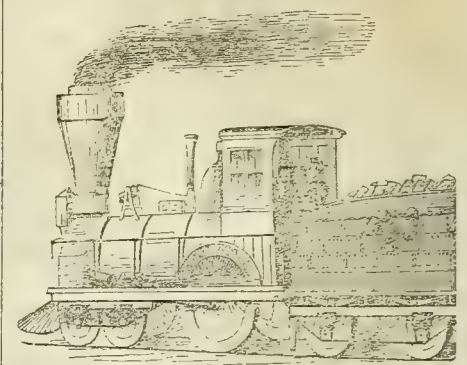
Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Tyres, Platers' Rollers etc.

P. S.—All Tools necessary for the construction or keeping in order Tubular Boilers.

THOS. PROSSER & SON,  
28 Platt Street, New York.

au.17†

## Cincinnati Locomotive Works!



The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20

MOORE &amp; RICHARDSON.

## WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

Late of the firm of T & E. Wason, Springfield, Massachusetts.  
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## Railroad Car Findings.

BRIDGES &amp; BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fitted Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

## LOCOMOTIVE ENGINE LANTERNS,

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

## Cotton Duck for Car Covering,

Of any required width to 124 inches.

## ENAMELLED HEAD LININGS

Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

## Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport &amp; Bridges, Car Manufacturers.

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.  
+oc6

## CAR MANUFACTORY,

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops, are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

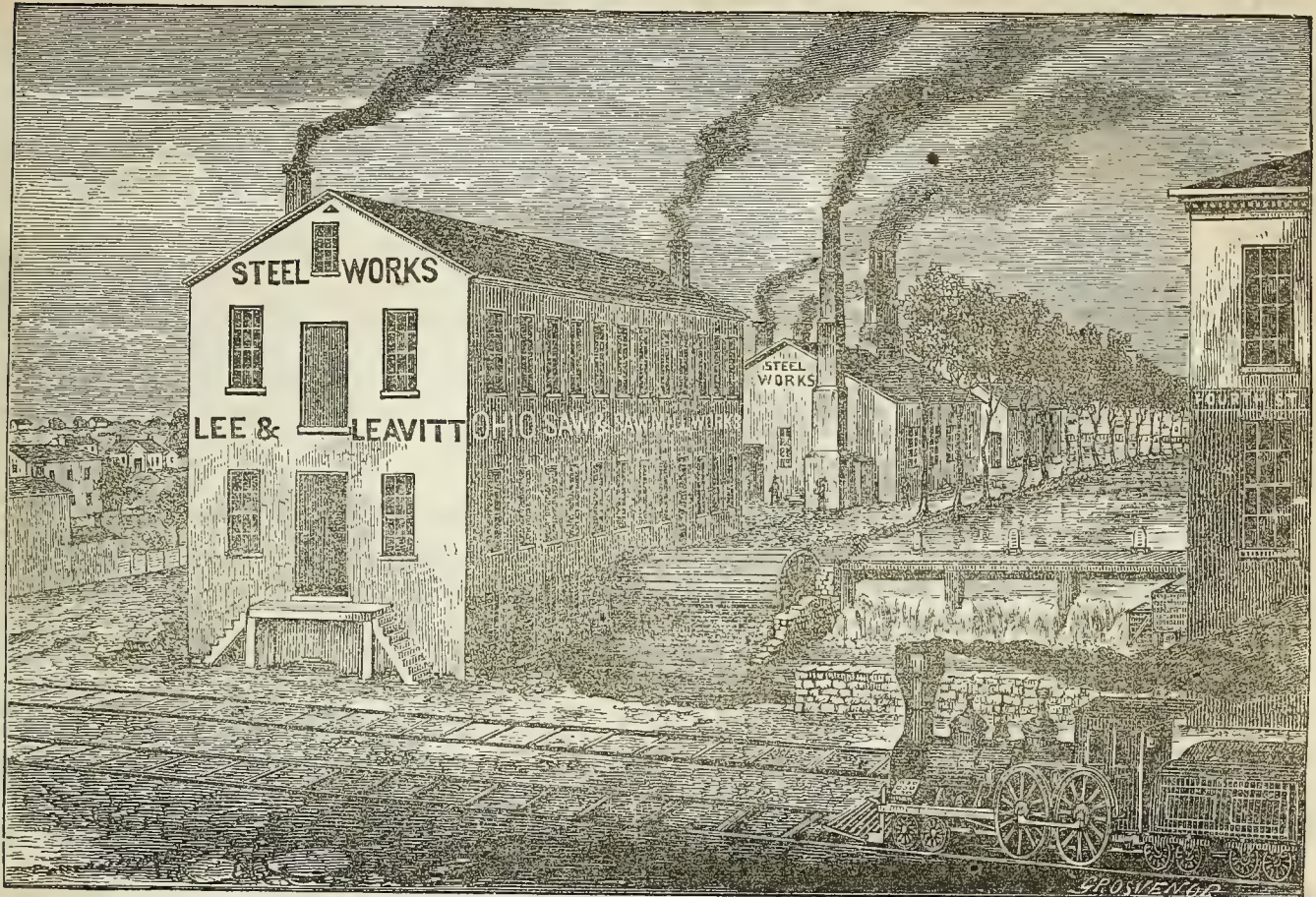
They respectfully invite the attention of railroad directors and superintendents to their establishment.

Dayton, Jan. 24th. 1853.

Jan. 25†



# LEE & LEAVITT,



MANUFACTURERS OF

## CAST STEEL AND CAST STEEL SAWS OF EVERY DESCRIPTION;

And of Cast Steel Mandrills, Railway Frog Points, Sledge Hammers, and every kind of Cast Steel Tools.  
Also, Portable Circular Saw Mills, Horse Powers and Engines.

Works, Hamilton, Ohio.—Warehouse, 15 Walnut Street, Cincinnati.

### New Works on Civil Engineering.

THE Field Practice of Laying out Circular Curves for Railroads. By John C. Trautwine, Civil Engineer.—4th Thousand, in pocket-book form with tucks.

—ALSO—

A New Method of Calculating the Cubic Contents of Excavations and Embankments, by the aid of Tables and 10 Engraved Plates of Diagrams. By John C. Trautwine, C. E.; 2d edition.

Price, one dollar each. Postage on the Curves, five cents; on the Excavations and Embankments, eight cents. For sale by

WILLIAM HAMILTON,  
Hall of the Franklin Institute,  
Philadelphia, Pa.

Sept. 21-3\*

### ENGINEERING!!

The undersigned is prepared to furnish SPECIFICATIONS, ESTIMATES, AND PLANS, in general or detail of all kinds of

Steam Vessels, Engines, Boilers, Mill Work, &c  
Particular attention given to the superintending of  
LOCOMOTIVES, TENDERS, CARS,

And Railway Machinery of every Description,  
While under construction.

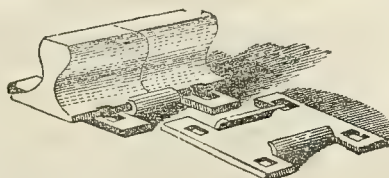
AGENT FOR THE PURCHASE of, on commission,  
all articles required for Railroads, Steam Vessels, Locomotives, Engines, Boilers, Machinery, &c.

General Agent for  
ASHCROFT'S STEAM GAUGE, ALLEN AND NOYES' METALLIC SELF ADJUSTING CONICAL PACKING, DUDGEON'S HYDRAULIC JACK,  
Also, for Water Gauges, Indicators, Steam Whistles, &c., &c.

CHAS. W. COPELAND,  
Consulting Engineer,  
64 Broadway, N. Y.

Nov. 5 tr

### RAILROAD SPIKES.



### WROUGHT IRON

### Chairs and Fastenings.

THE undersigned will continue to manufacture with increased facilities, HOOK & FLATHEAD R. R. SPIKES, of all Patterns, WROUGHT and CAST CHAIRS, and FASTENINGS, BOILER RIVETS, BOLTS, SHIP and BOAT SPIKES, &c., &c.  
The best quality of refined iron is used, and all orders filled with despatch. J. HOPKINSON SMITH,  
No. 25, South Charles st.

Please direct the name in full.  
Balt more August 31-7

### RAILROAD IRON, LIGHT WEIGHT.

470 TONS, 47 lbs. per yard, good quality and pattern, now lying at New Orleans. For terms apply to  
VOSE, PERKINS & CO.,  
New York

### ENGINEERS' & SURVEYORS' INSTRUMENTS.

### JAMES FOSTER, Jr.,

SOUTH WEST CORNER OF FIFTH & RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. R. Record of October 20th, 1853. mar1-tf

### Indianapolis & Cincinnati Railroad.

OFFICE—INDIANAPOLIS, IND.  
Col. T. A. Morris,..... Pres't  
1y mar.27.

### Indiana Central Railroad.

OFFICE—INDIANAPOLIS, IND.  
I. S. Newman,..... Pres't.

### Buffalo & Erie Railroad.

OFFICE—BUFFALO, N. Y.  
G. Palmer, Pres't. Buff. & State R. R. } C. C. Dennis,  
C. H. Reed, Pres't. Erie & North E. R.R. } Supt.  
1y mar.27.



**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patent's.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**

WHALEBONE AND STEEL WIRE BRUSHES.

**Artesian Well Tubes**  
 Screwed Flush inside & outside.

**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**

**HOLLOW SLAB WATER TUYERES,**  
 For Smith's use, and

**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

For warming air, boiling water and heating ovens.

**ANNUAL**  
**SURFACE CONDENSERS,**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**

of any calibre.

**PATENTED CAST-STEEL TIRES,**

For Railway Wheels. Railway Axles and Springs,  
**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

**FRIED. KRUPP,**

Essen Rhenish Prussia.

Represented solely in the United States by

**THOMAS PROSSER & SON,**

**28**

PLATT STREET, New York.

**CLINTON ROBSON & CO.,**  
**BRASS FOUNDERS,**  
 No. 154 Front street, between Pike and Butler sts.,  
 CINCINNATI OHIO.

STOP COCKS, Bibb, Flange, Valve, Gauge, and Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes, Couplings, Salt Well, and Hose Joints; Steam Whistles, Distillery Work, General Brassers, Anti Friction Metal, Spelter Solder, and Copper Rivets.  
 Pumps of all descriptions, Brass and Composition Castings, Dixon's best Black Lead Crucibles.  
 Also, Dr. Ransom's Patent Constant Suction Pump for Railroad Water Stations.

**RAILROAD IRON.**

I WOULD respectfully call the attention of Railroad Companies and Contractors to my facilities for  
**NOTCHING RAILROAD IRON**

Suitable to be spiked in the Chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. Address, S. McKenna,  
 Jan 11.-tf. Box 705, Cincinnati P. O., Ohio.

**W. G. ATKINSON,**  
 Civil Engineer, Surveyor & Draftsman.  
 CUMBERLAND, MD.

**RAILROAD** routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared. mail-ly

**THOS. M. CASH,**  
**PHILADELPHIA RAILWAY AGENCY.**  
 For the purchase of all articles required by Railway Companies, On Commission.  
 Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

**REFERENCES.**

Richard Norris & Son, Locomotive Builders, Philad'a,  
 Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "  
 Charles H. Fisher, Esq. "  
 Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.  
 Pinckney Huger, Esq., Pres't N. E. R. R. Co. "  
 Oct. 13.-tf.

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**

**Lathe Mandrels, Gauges**

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,  
 15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**Cincinnati, Hamilton, and Dayton**  
**RAILROAD.**

**SUMMER ARRANGEMENT.**

COMMENCING MONDAY, MAY 7th, 1853.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Spinefield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**SECOND TRAIN.**

Indianapolis Express, at 6.05 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 12 M., for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.15 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Passengers by the 6 A. M. Lightning Express Train, go directly through to Cleveland without changing cars. Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.  
 HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the Office.

**WINTER ARRANGEMENT.**  
**SAFETY.—SPEED.—COMFORT.**

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena and**  
**Rock Island,**

**BY THE WAY OF THE**  
**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

**THROUGH BY DAYLIGHT TO TERRE HAUTE,**  
**LAFAYETTE, PERU, &c.**

Trains leave the Depot of the Cincinnati, Hamilton and Dayton Railroad as follows, viz:

First Train.—Lightning Express at 6 A. M.

Second Train.—Accommodation, at 2.15 P. M., connecting at Richmond with train for Hagerstown, New-castle, &c., &c.

Third Train.—Accommodation, at 5.20 P. M., for Richmond and intermediate points.

Returning, reach Cincinnati at 10 A. M. and 12 M. and 6 P. M.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

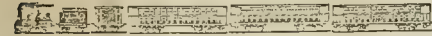
" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.  
 JOHN W. SHIPLEY, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
 feb. 8-ly D. M. MORROW, Superintendent.



**Baltimore & Ohio Railroad.**

**380 MILES BETWEEN WHEELING AND BALTIMORE.**

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**

**Through Tickets from all Parts of the West,**  
ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

**AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED**

**For Sending Travelers Direct to WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**

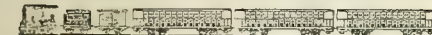
The Tullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

**WM. G. HARRISON,** President, **JOHN H. DONE,** Mast. of Transportation,  
je. 84 Baltimore.

**The Shortest. Quickest and Best ROUTE TO LOUISVILLE.**

**MADISON, INDIANAPOLIS, PERU, TERRE HAUTE, MICHIGAN CITY, CHICAGO, GALENA, ST. LOUIS, AND NEW ORLEANS.**

**OHIO & MISSISSIPPI RAILROAD,**

**ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER NOTICE, the Passenger Trains will run as follows:**

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.**

**For Indianapolis.**

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.**

**For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations. Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M., 2.30 P. M., 4.05 P. M., and 9.30 P. M.

Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

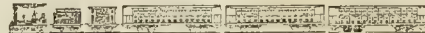
For further information see handbills, or apply at the Ticket Office, on Fourth Street, north side, four doors from Vine Street, opposite new Custom-house.

**S. S. POST,**

Chf. Eng'r and Supt.

Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.  
**W. S. BABCOCK,** Agent,  
Sept. 5. St. Louis and Cincinnati Omnibus Line.

**1855. Winter Arrangement, 1855. COMMENCING MONDAY, JAN. 29.**

**LITTLE MIAMI AND COLUMBUS, AND XENIA RAILROAD.**—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

**FROM CINCINNATI TO**

To New York in.....	22 1/2 hours
To Philadelphia in.....	31 1/2 "
To Washington in.....	29 "
To Baltimore in.....	28 "
To Buffalo in.....	16 1/2 "
To Dunkirk in.....	15 "
To Cleveland in.....	9 1/2 "
To Sandusky in.....	6 1/2 "
To Pittsburgh in.....	14 "
To Wheeling, in.....	10 1/2 "

**FOUR DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

**SECOND TRAIN.**—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

**THIRD TRAIN.**—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Morrow.

**FOURTH TRAIN.**—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on **SUNDAY**, at 2.30 o'clock P. M. for Columbus.  
Trains run by Columbus time—7 minutes faster than Cincinnati.

**FARE AND THROUGH TICKETS.**

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-boat Landing, or at the Eastern (Little Miami) Depot, East Front street.

**WM. H. CLEMENT,** Superintendent.

**P. W. STRADER,** General Agent

**OMNIBUS LINE.**

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between **COLUMBUS** and **URBANA**. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

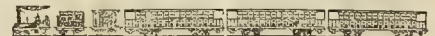
The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

**A. G. CONOVER,** Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-1f.

**PERU & INDIANAPOLIS R.**

**Peru, Logansport, Wabash, Rochester, and Indianapolis.**

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

**E. G. BARNEY,** Superintendent.

Indianapolis, March 22, 1853.

**Covington and Lexington Railroad.**

**OPEN** to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.  
Two Daily Passenger Trains.

On and after **MONDAY, Oct. 9th, 1854**, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demosville, Butler, Irving, Falmouth, Cullerville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Mayeville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.25 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.  
**J. M. DOUGHERTY,** Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices.  
oct. 17\* **CLAYTON & GRANT.**

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

**VIA LAWRENCEBURG,**

**IN** connection with the **Ohio and Mississippi Railroad.** Passenger Trains leave Cincinnati at 7.15 A. M., and 3.15 P. M. Arrive at Indianapolis at 11.30 A. M., and 8.30 P. M.

By Morning Train, passengers arrive at Chicago in 14 hours, and at St. Louis in 28 hours.

Freight shipped to Indianapolis and all other points West and North without delay, at cheapest rates.

Cars run from Lawrenceburg to Terre Haute, Lafayette, Peru and Chicago, without unloading.

Office, foot of Main Street, corner of Water Street.

**SIDNEY RICE,** Agent.

Cincinnati, Sept. 28, 1854.

**General Map Establishment, No. 3 College Hall, Walnut St., Cincinnati****E. MENDENHALL, MAP, BOOK & PRINT SELLER,**

Has constantly on hand

**GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND OUTLINE MAPS.**

**Anatomical Charts, Atlases and Gazetteers, Geological and Astronomical Charts, Globes, MICROSCOPES, TELESCOPES,**

**DRAWING INSTRUMENTS, &c.**

Publisher of the

**Railway Map of the Western States,**

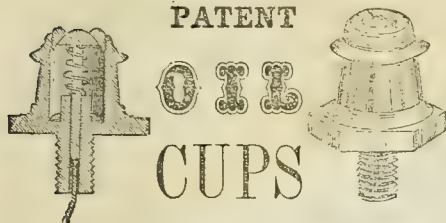
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**NOTICE TO CONTRACTORS.**—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Obion (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburgh and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

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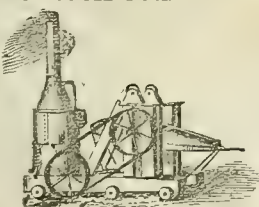
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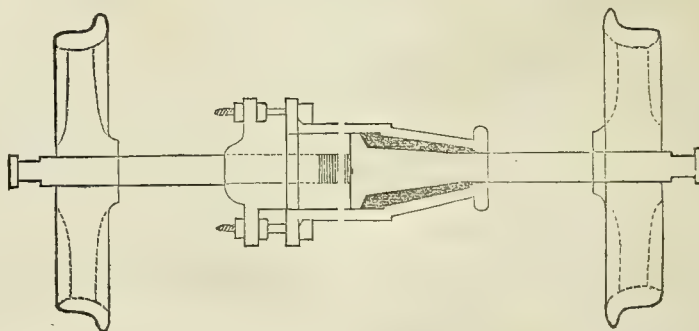
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The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked  
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the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car  
and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the  
wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from  
its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle,  
for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curva-  
tures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more  
strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is  
not more than one-third of the strength of the other portions of the axle.

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loy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight  
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of the car.

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most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service for  
over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction  
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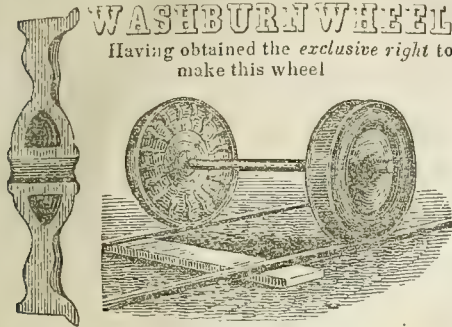
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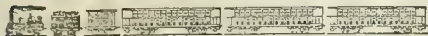
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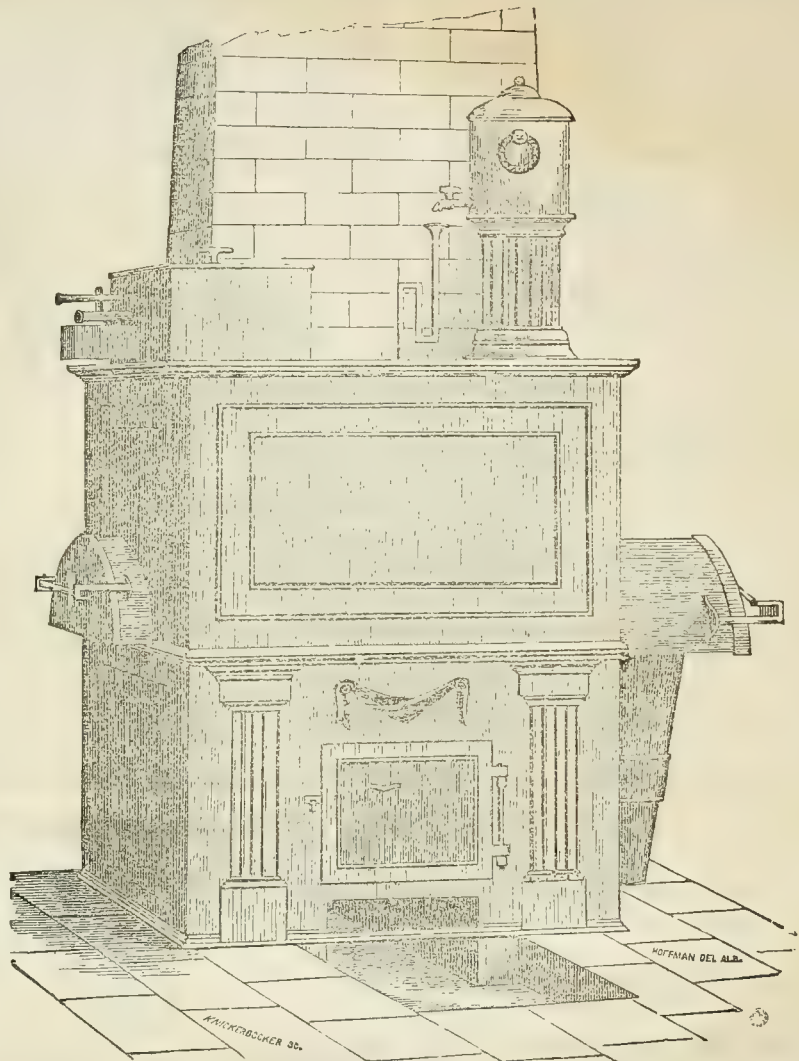
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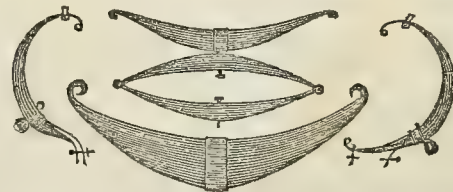
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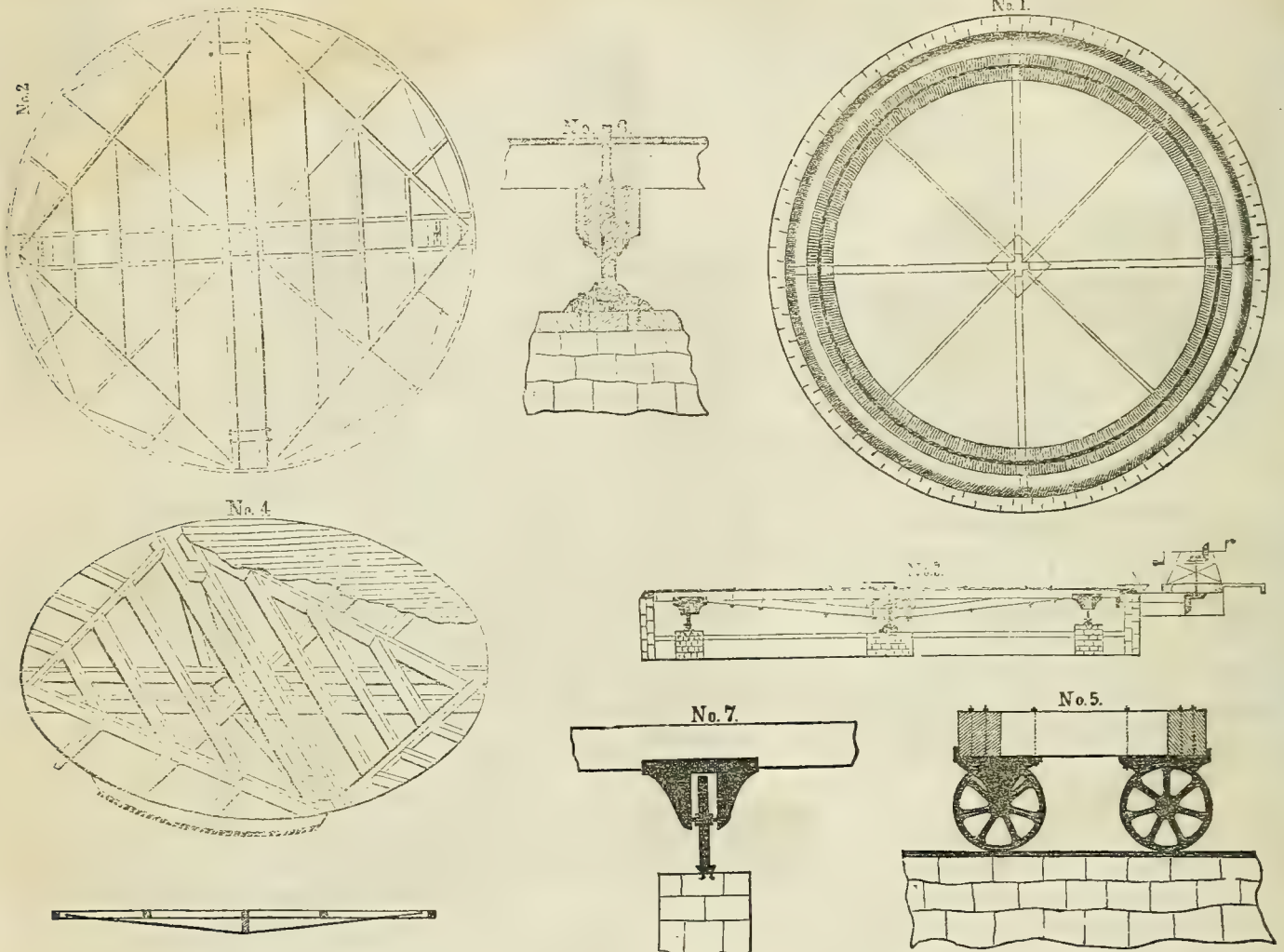
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## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer, Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
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## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of *Bank and Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

D. M. CARHART, Cleveland, Ohio.

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## CINCINNATI:

THURSDAY MORNING,.....MAY 31, 1855.

### E. D. MANSFIELD,

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ACKNOWLEDGMENTS.—Our acknowledgments are due to two of our friends, G. F. Tuttle, Esq., and the Editor of the Cincinnati Commercial, who have kindly supplied us with their file of the Third Volume of the Record. There is but one number necessary in each file; such a gift at such a time is highly prized. We assure our friends that we highly appreciate their good will toward us. Such pleasant proofs of esteem and friendship, are among the pleasures of one's life.

## TO OUR FRIENDS.

So complete was the destruction of everything combustible, in our office, at the time of the recent fire, that we have not even a file of the present volume left. We would, therefore, be greatly obliged to our subscribers who have more than one copy of Vol. 3 of the Record, if they would spare us some of the extra copies. Our reports, pamphlets, books of reference, and exchanges which we had treasured with care, are all either burned or so injured by water and otherwise, as to be of no service; we have, therefore, to request of the railroad companies, who have been kind enough to send us their reports hitherto, to furnish us with duplicates of the present and preceding reports as far as they are able.

VOL. III.—No. 14.

## TRAFFIC OF OHIO RAILWAYS IN AGRICULTURAL PRODUCE.

In the estimates we have made of the probable business and profits of Western Railways, we have always given great importance to the carriage of surplus agricultural produce. The weight and carriage of domestic produce is far greater in proportion, than that of either merchandize or manufactured articles. It is in the great Central West only, that surplus produce to any great extent exists; and of course, it is the railways of Ohio, Indiana, Illinois, Kentucky, and Tennessee, that will enjoy the largest portion of this traffic. In the year past, it is known, that there was comparatively a very small surplus of any kind, and that consequently, the receipts of western roads have little more than held their own, while with a full crop, these receipts would have been enormously increased. Bad, however, as that year was, we have gathered up the traffic statistics of seven Ohio railways, and shall present the aggregate of agricultural produce carried on these roads only, by way of making a beginning in this sort of information, and to furnish a basis of comparison for the future. These seven Ohio railways are these, viz:

CLEVELAND AND PITTSBURG.

OHIO AND PENNSYLVANIA.

MANSFIELD AND SANDUSKY.

EATON AND HAMILTON.

CENTRAL OHIO.

LITTLE MIAMI.

CINCINNATI, HAMILTON, AND DAYTON.

The aggregate of agricultural produce carried by these several railroads, was as follows:

Flour.....	384,890 bbls.
Grain, viz: Corn, Wheat, Oats, Barley, and Rye.....	3,098,050 bush.
Whisky.....	122,755 bbls.
Pork.....	90,198 "
“ in bulk.....	26,555,019 lbs.
Lard.....	2,241,390 "
Beef.....	3,477 "
Cattle.....	28,114 No.
Hogs.....	375,516 "
Sheep.....	10,704 "
Butter.....	10,148,940 lbs.
Cheese.....	5,013,570 "
Wool.....	2,703,273 "
Flax Seed.....	113,306 bush.
Coal.....	1,964,007 "
Iron.....	41,131 Tons.

Reducing these several articles to Tons, we have the following result:

Flour.....	38,000 Tons.
Grain and Flax Seed.....	103,060 "
Whisky.....	18,000 "
Pork, Beef and Lard.....	27,600 "
Live Animals.....	47,300 "
Butter, Cheese and Wool.....	8,800 "
Coal.....	80,000 "
Iron.....	41,131 "
Aggregate.....	363,831 "

It will be observed that this immense amount of produce has been carried off on only seven roads in Ohio, in a year of scarcity. By comparing the results with what we

know of previous years, we may safely affirm, that it is not *one-fifth* of what these roads will do with a full crop. In other words, with a full harvest, these railways will carry near two millions of tons of produce. These seven railways are 584 miles in length, or about one-fourth the number of miles now in operation in the State of Ohio alone. Of the roads not enumerated above, are the Cleveland, Columbus, and Cincinnati; the Mad River; the Marietta, and others which do a very large business.

Of the class of traffic in produce, which may be expected greatly to increase are those in Coal, Corn, Live animals, and Iron. These are all very heavy articles, and the transportation of them by railway will rapidly increase. We expect to see the railway traffic in these articles to increase the next five years, within this State, to at least one million of tons.

The domestic consumption of coal will require a large carriage of that article on some of the railways, which lead to the coal mines. The transportation of Indian Corn, will be a great element of the central railway line.—The increase of the Iron trade may be anticipated, by the single fact,—that there are six Iron Furnaces on the line of one railway, just constructed, and waiting for the completion of the work.

We have spoken of Ohio, because the facts relating to this subject are within our own knowledge; but, what is true of Ohio, in a large degree, is true also of Indiana, Illinois, Kentucky, Tennessee, and Missouri. The mineral region of the Ohio valley, comprising 300,000 square miles, is only *begun* to be cultivated properly. In a few years, it will have *ten millions* of people, and will have *five millions* of tons of freight to be transported, on its railways, and every rail and locomotive, yet constructed will be needed to carry off its surpluses, or to supply its people with coal and Iron. This time, too, is very near at hand, and many of the despised railway stocks of 1854 will be much above par, in 1860.

## LAKE SHORE R. R. BRIDGE AT PAINESVILLE.

The long bridge at Painesville, destroyed about a month ago, is reported to be again in passable condition.

## HEMPFIELD RAILROAD.

It is stated in the Pittsburgh papers, that the Hempfield Railroad has contracted with the Crescent Mills of that city for all the iron necessary to finish the road from Wheeling to Washington, Pa.

This is a good example and one which we hope will be followed. Our own manufacturers, as far as they are able, should supply the wants of the country. This is sound policy, and the interest of every one.



## R. M. SHOEMAKER—ENGINEER.

In our analysis of the report of the *Cincinnati, Hamilton and Dayton Railroad Co.*, we stated that the estimate made by Mr. Shoemaker was \$647,000 only. This was a mistake, arising from overlooking the fact, that this estimate was to Hamilton only. Mr. Shoemaker never made, we believe, a public estimate; but, made one to the Directors, giving the cost to Dayton (excluding Depots, Rights of way, etc.,) at about \$1,400,000.

In fact, when the road was first finished to Dayton, this fell but little short of the reality. Mr. Shoemaker, therefore, is not to be charged with any considerable error in the estimates.

We take this occasion to say, that Mr. Shoemaker sustains a high reputation as an Engineer, and that we had no intention of censuring him. All we aimed at was to give a true financial history of the Road, as embodied in its own reports. Such a review is necessary to a fair understanding of our public works; and were it made oftener, would be of great use to the railway companies as well as the public.

## THE YELLOW CREEK COAL BEDS OF OHIO

The consumption and production of coal is one of the most interesting topics of commercial interest. We have called our readers' attention frequently to this subject, and given such statistics, as we could procure. We now avail ourselves of an excellent article in the *Wellsville Patriot*, (Columbiana Co.) to give some information upon the coal of Yellow Creek.

On Yellow Creek, there are five distinct strata all varying in thickness and possessing different characteristics. The many purposes to which one kind of Coal is better adapted than another, is exemplified by the following description of each seam, commencing with the lowest strata above the surface, about midway between the mouth of the Creek and the village of Salineville, viz:

The "Creek Vein," four feet thick, pure and compact. This Coal possesses intense heating powers, and for steam, smith, foundry and parlor uses, it is said to be an excellent article. It is found in great abundance on the property of the *Illinois Company*, at the Steubenville Road station, now New Salisbury. It cokes well, is easily mined, and owing to its solidity, will bear transportation almost equal to Anthracite. When its qualities are better known it will no doubt be eagerly sought for. The next above, is the "Strip Vein," known in the Cleveland market as "Hammondsville Coal." This coal we have alluded to before. It enjoys a reputation quite equal to the Pittsburgh, and is rapidly becoming a great favorite as a Gas, Foundry and Blacksmiths' coal. For steam and domestic use it has no superior. In fact, for

every purpose to which a pure coal can be applied the "Hammondsville," it must be acknowledged, ranks higher than that from any other seam on the creek. It meets with a quick sale and will be extensively mined at Hammondsville, and by the New York and Ohio Company adjoining.

Above the "Strip" is the "Roger Vein," prevailing from the Mouth of the Creek to near Salineville. Openings have been made by the N. Y. & Ohio Company, and the coal is said to be remarkably pure, and of course well adapted to a variety of purposes. Arrangements are making, we learn, to test the productive capacity of this seam by several of the Companies who have it convenient for working. About thirty feet above is the "Seven Foot Vein," and for extensive production is one of the most important seams of Coal lying in this section of Ohio. This vein has been extensively worked by the *Ohio Diamond Company*, at the Mouth of the Creek, and the cheapness with which it is mined, must always give for it a decided advantage in price over the coal from the smaller seams. For shipping, this coal must needs be in demand, as large stocks can be easily accumulated, owing to the easy process of mining so large a vein.

This seam is also worked by the *New York and Ohio Company*. The coal, however, is more brittle than that from the Creek or strip Veins; is by no means so pure, and consequently not as well adapted for manufacturing purposes; but makes an excellent fuel for stoves and grates, and for such must meet with an extensive sale.

The next is the "Cumberland Vein," between four and five feet thick, not much worked. There is a vein about the same thickness, worked by our friend GROSS, on the Ohio River, near the Mouth of Yellow Creek, called "Linton Coal." It is a good, free burning coal, carefully mined, and enjoys a considerable reputation in the Cleveland market.

After giving some statistics of production, the writer in the *Patriot* says: It will be seen that Columbiana and that part of Jefferson where the Yellow Creek Coal is found, furnished for transportation over the Cleveland and Pittsburgh Railroad, for the first eleven months of 1854, as follows:

From the Mouth of Yellow Creek,.....	11,129 tons,
" Hammondsville,.....	4,096 "
" Steubenville Road,.....	171 "
" Salineville,.....	11,316 "
" Rochester,.....	3,500 "
Total,.....	30,211 tons.

Now this is a small quantity compared to the whole production of Ohio. The present year, however, will no doubt witness a very large increase in the supply from these two counties. During the first eleven months of last year, it appears the Cleveland and Pittsburgh Railroad Company transported over their road 41,098 tons of Coal; of which the

Yellow Creek fields supplied 30,211 tons; Pittsburgh, 5,297; Darlington, 5,528. It is estimated that 150,000 tons will pass over the road for the current year, ending 30th November next, of which 100,000 tons will be mined and sent to market by the different interests on Yellow Creek. We have heard much higher estimates of their productive capacity, but are of the opinion that the present means for transportation will not permit a larger quantity to go forward during the coming season.

So long as the demand, at Cleveland continues to increase, there will be an unlimited field for the distribution of Yellow Creek Coal. The demand will probably not slacken, in many years. As the mines become opened however, another thing will happen. Manufacturing towns will arise, and as the points on Yellow Creek are situated where Manufactured articles of iron and wood will be in great demand, it is very evident that so fine a coal region will soon give an impulse to the business and growth of the country around it, and traffic to the railways, which may travel it.

## CONSUMPTION OF FUEL ON RAILWAYS.

This is getting to be one of the most important subjects connected with railway traffic. We think that the ingenuity of railroad men should be directed toward economizing fuel. What is to prevent the general use of coal on Locomotives?

In the table of expenses for the Cincinnati, Hamilton & Dayton Railroad, occurs the following facts:

Cords of Wood Consumed.....	10,158
Cost.....	\$30,476
Cost per mile.....	500

Now, if the twenty thousand miles of railways in this country consume (and they probably do,) in the same ratio, the annual cost of fuel is *ten millions of dollars!* This is an enormous sum, and consumes a large portion of the annual receipts. We have no doubt that one-half of this—five millions per annum—might be saved by a judicious economy, or rather by proper machinery for the consumption of coal. This subject should be looked into by railway managers.

## RAILROAD WHARF AT CLEVELAND.

We learn that it is proposed to build at Cleveland, a wharf for the use of the several railroads and companies engaged in the coal trade. It is proposed to construct, on Lake Erie, a break-water, running east from the present coal pier, 2,265 feet and thence turning in shore about 900 feet, leaving in the centre an entrance of 200 feet. The area will be 400 feet in width and 1,600 feet in length, and will afford excellent wharf accommodations. To the commerce of Cleveland, this is a matter of great importance, as it will enable vessels to load and unload on the Lake front, without being compelled to go into the river.



## Railroads.

### SUNBURY & ERIE RAILROAD—MEETING IN PHILADELPHIA.

A meeting was held in Philadelphia, on the evening of May 24, to consider the propriety of taking measures for the speedy completion of the Sunbury & Erie railroad to the harbor of Erie. Gov. Pollock was called to preside, and on taking the chair made an excellent address, in the course of which he said:

"I am proud of our good old Commonwealth. I do not reside in this great metropolis of our State, but do reside in that which comprehends it; and here, to-night, I do not desire to address you as Philadelphians, but to make an appeal to you, if an appeal were necessary, as citizens of the Commonwealth. Philadelphia speaks for herself. Her interests are our vast riches, the commerce that crowds, the business that throngs your streets, the enterprise and energy of your citizens attests the fact that Philadelphia is destined to become the first among the cities of the Union.

"You possess, to-day, no foreign commerce rivalling that of New York, but you do possess, and let me tell you, that you do possess, and the year is not far distant when you will boast with success, an internal commerce that will put to the blush the thousand ships that now crowd the harbor of New York. When I look abroad over our extended country—the vast territorial limits of Pennsylvania—I feel that I am a citizen of the American Union, a feeling that lifts me above mere party considerations, and even the love of State, when I find that the great interests of our Union are in comparison with our foreign trade, infinitely superior.

"When I remember that our agricultural productions alone, in 1840, were *ten thousand millions of dollars*, and in 1850, *fourteen thousand millions of dollars*, and when I see standing side by side, all that astounding fact, the declaration that our foreign commerce does not exceed two hundred millions, I am warranted in saying that the internal commerce of the Union—particularly the State of Pennsylvania, through which a great portion of that commerce must pass—is that to which the attention of every citizen should be directed. Pennsylvanians, as I have said upon more than one occasion, whether residing here or elsewhere in our State, do not know the State of which they have the honor to be citizens.

"You do not know her resources—the wealth entombed in her hills and her plains. It is there waiting the energy, enterprize and capital of the State to bid it into life. Northern Pennsylvania is to-day a sealed book to thousands of our population; Central Pennsylvania is unknown, and the untold wealth

of her hills, her plains and her rivers are there awaiting capital and enterprize to come to Philadelphia. How is it to be brought? Avenues must be opened; canals belong to other days and other times, railroads alone can reach what are now the gardens in your centre."

Gov. Pollock was followed by Gov. Bigler, President of the road, who read an elaborate report of the past history and present condition of the road. Gov. Bigler said:

"On entering upon the duties assigned us, we found  $28\frac{1}{2}$  miles of the road, extending from Milton to Williamsport, in successful operation; the remainder of the line between Sunbury and Ridgway, 136 miles, under contract: a large portion of the work, between Lock Haven and Sinnamahoning, and a few sections between the former point and Williamsport in process of construction; and that the cost of a single track from Sunbury to Erie, had been estimated at eleven millions of dollars.

"The stock subscribed up to March 1, 1855, amounted to 47,078 shares, or \$4,707,800.—The amount paid in, to \$2,093,740—leaving a balance outstanding of \$2,614,060, to which may be added the stock provided for in the contract with J. B. & W. G. Moorhead for work, say \$290,000, and also with the Montour Company for iron, \$250,000, making an aggregate of \$3,154,060. This sum is made up as follows, to wit:

Balance of the City's subscription.....	\$1,050,000
Cleveland, Painesville and Ashtabula R. R.....	200,000
City of Erie.....	150,000
The Crane, Goodwin and White subscriptions, assumed by James Burns & Co., per contract for work.....	900,000
Individuals.....	314,060
By contracts for work and material, as above stated.....	540,000

"We find, in addition, that sundry informal and conditional subscriptions have been offered by counties and Boroughs on the line of the road, amounting in all to about \$1,000,000.—But we have not regarded these as a resource for the prosecution of the work.

"The receipts and expenditures to the 1st of March, were as follows, to wit:

Receipts for—	
Subscriptions paid in.....	\$2,093,740 00
Bank of United States.....	4,724 84
Bonds of this Company.....	185,000 00
Bills Payable.....	30,186 86
Advanced by James & Co., N. Y., on collateral security....	47,700 00
	\$2,361,351 70
Expenditures for—	
Buildings and Lands.....	\$9,257 77
Engineering.....	104,382 45
Road Construction.....	1,207,029 16
Piers in the harbor of Erie....	66,001 37
Road Superstructure.....	335,624 37
Interest and Discounts.....	60,156 12
Contingent Expenses.....	60,722 66
Interest paid to Stockholders. J. Burns & Co., on contract....	13,554 26
Cleve. P. & A. R. R. coupons....	8,680 00
Erie City coupons.....	1,520 00
Loan acc.....	970 00
John Golbraith.....	50 00
West Branch Bank, Williamsport.....	135 00
Right of Way and Lands.....	73,454 05
Suspense acc. with old Stock....	3,128 10
	\$2,075,650 88

Balance.....	\$285,700 82
This balance consisted of the following securities, viz:	
Erie City Bonds.....	\$112,000 00
Cleveland P. & A.....	117,000 00
Claim against S. Dillon.....	22,740 82

"Catawissa R. R. Co.....	9,500 00
"Montour Iron Co.....	24,038 00
In Bank.....	422 30
Total.....	\$285,700 82
From which must be deducted the amount of Bills payable as above stated.....	
Also, advance of James & Co. on the bonds of the C. P. & A. R. R. Co.....	30,186 86
Also, discounts on bonds to meet the above amounts....	47,700 00
	12,320 00
	90,206 86

Actual balance..... \$195,493 96

The Company on November 13, 1854 modified their contract for iron with the Montour Iron Works, so that the Montour Works now take 2,500 shares of the stock of the road and furnish 15,000 tons of iron deliverable at Milton, at \$70 per ton. The company are to pay \$53.33 in cash on each ton and \$16.67 in stock.

The company has a contract under date December 2, 1853, with J. B. & W. G. Moorhead, which embraces all the work between Sunbury and Stock Haven, 66 miles.

"An agreement was also made in 1853 with Geo. J. Morton & Co., for the construction of piers in the harbor of Erie, the work to be paid for in Erie city Bonds. About \$66,000 has been paid on this contract. It is estimated that it will take \$150,000 to put the harbor in condition for safe and extensive use.

"Under date of September the 29th, 1854, a contract was made with James Burns & Co., for the construction of the road between Lock Haven and Ridgway, a distance of 98 miles. This contract covers all the cost of the road, except land rights, iron, chairs, spikes and contingencies, and on the present location and plan, would amount to about four millions of dollars, \$900,000 of which, by the contract, is payable in the stock of the road, the parties to this agreement having bound themselves to take the several instalments of the Crane, Goodwin & White subscriptions at par, and at their own risk. Operations had been extensively commenced under the contract, and \$130,000 paid.

"By a contract between this and the Farnandsville Company, under date of February 1st, 1855, the former subscribed \$25,000 toward the construction of a Bridge over the Susquehanna River, at the mouth of the Tangascootack Creek, so as to connect the coal road of the latter Company with the Sunbury and Erie Road. This subscription was paid in full in the bonds of this Company, soon after the execution of the agreement.

The contracts have in many instances been recently modified, so as to materially reduce the present liabilities of the company.

"In November, 1853, a mortgage was created on that part of the road found between Milton and Williamsport, to secure bonds to the amount of \$700,000. Subsequently the bonds issued, were redeemed by exchanging for them an equal amount of the City Bonds, and the mortgage cancelled.



"On the 8th of December, 1854, another mortgage was made for one million of dollars, covering the road from Sunbury to Williamsport, and bonds created accordingly. Of this sum \$815,000 is still in the possession of the Treasurer.

"The road from Milton to Williamsport, 28½ miles, has been graded and bridged for a double track, with a single track laid down at a cost of \$1,460,944. To complete depots, sidings and pay balances on contracts and land rights on this link, an additional sum of twenty-five or \$30,000 will be required. This completed portion of the road is constructed in a substantial manner, and laid with rail 69 pounds to the yard.

The directors proceed to say, "The policy most acceptable to the board, would be to construct the road free from debt; but that would be a fruitless attempt. The strongest of our railroad corporations have been forced to resort to mortgages as a means of raising capital, and this company can do no better.

"A mortgage of 50 per cent. on the cost of the completed link of the road, would give the company a capital of \$1,800,000, to be used in the further prosecution of the work.

"This fund the board would propose to apply as follows: Eleven hundred thousand dollars, together with the remainder of the Crane subscription, \$750,000—(should it be deemed politic, upon a more full examination of the character of the work, to insist upon the performance of the whole contract by which it was assumed)—towards the grading and bridging from the Tangascootack Creek westward, which at \$25,000 per mile,—a price exceeding the cost under the present contract—would do the grading for the distance of 74 miles.

"To the western division, from Warren to Erie, 62 miles, they would assign the balance of the mortgage, say \$700,000; also, \$200,000 additional subscription recently made by the city of Erie, and the subscriptions of the counties of Warren and Erie, in all \$600,000, not included in the general aggregate of subscriptions as heretofore given, making a total of \$1,300,000. This sum, it is estimated, would make the grading and bridging on that division. Indeed, the board, a few days since, received a proposition from a large number of the most wealthy and enterprising citizens of Erie and Warren counties, proposing to take the subscriptions, individual and municipal, peculiarly to that end of the route, with \$300,000 in addition, and be obliged to raise the balance of the capital necessary to do the bridging and grading between the foregoing points.

"The assignment suggested by the board is far more liberal towards that division of the work.

"The realization of the picture we have presented, would leave the company with 76

miles of completed and operating road—136 miles graded and bridged—and 57 miles, extending from Trout Run to Warren, unbroken. But here we must come to a full stop. Without additional capital we can go no further. If we are asked why we would make so much grading without putting down more rails, our answer is, that we fear the work could not pay without an eastern and western outlet; and for the further reason, that when the grading shall have been made all the way through, we believe it will give the company sufficient credit to get the iron and put down the superstructure.

"The remaining 57 miles present exceedingly heavy work, and would cost, on the present location up Trout Run, for grading and tunneling, about \$2,800,000."

"To meet this demand, we propose to get up subscriptions to what might be termed a 'Consummation Stock.' The stock so subscribed, having, of course, no preference over the original and no peculiar characteristics; but the condition of the subscription to be, that no part of it should be claimed or payable until an amount shall have been bona fide subscribed, by responsible parties, sufficient to make the grading, tunneling and bridging, on the connecting link, agreeable to the estimate of the engineer, the validity of the subscription to be first sanctioned by a majority of the stock so subscribed at a meeting to be called for that purpose. The proposition may seem novel but cannot be claimed as original. It was suggested by the assurances which we meet daily in monetary and business circles of assistance for the enterprise, so soon as its consummation within a reasonable period can be made obvious.

"The Sunbury and Erie Railroad, in our judgment, would not become a troublesome competitor to any other Pennsylvania railroad; but a most liberal contributor to the business of many, and for that reason in its incipient stages should enjoy the favor of all. It may draw business from the great West, now seeking more northerly channels, and hand it over to the Catawissa Railroad, to the Reading, and when the intended connections are made, to the North Pennsylvania and Susquehanna Railroads, and by means of the latter, for a short distance over the Pennsylvania Road, and for the entire distance over the Harrisburg and Lancaster, and the Columbia and Philadelphia; but it could have little, if any, power to divert business from either."

#### Florida, Atlantic and Gulf Central Railroad.

The citizens of Jacksonville, Alabama, in an election held on May 15, voted in favor of a subscription of \$50,000 to the Florida Atlantic and Gulf Central Railroad. On the evening of May 17, the city council agreed to postpone the confirmation of the subscription till the location of the terminus of the railroad.

#### PITTSBURG AND CONNELLSVILLE R. R.

The first thirteen miles of the second division of this road from West Newton to Dayton Station, was formally opened on Thursday, May 17.

The division now opened extends to the foot of the Big Rapids of the Youghiogheny.

The excursion party, composing about 250 persons, left Pittsburg by steamer up the Monongahela and Youghiogheny, receiving accessions of fresh parties as it proceeded. Arrived at West Newton there was altogether from 400 to 500 persons. Here the party dined. West Newton is a handsome village, containing about one thousand inhabitants. The road to Dayton, thirteen miles, is described by the excursionists as being well ballasted, and in first rate order. Dayton, its present terminus, is a town in *prospectu*, and contains at present but one or two buildings.

The following gentlemen presided over the festivities:

*Chairman*—Col. A. M. Hill, of Fayette County.

*Vice President*—Hon. M. Hampton, Pittsburg; Mr. Cyrus P. Markle, West Newton; Judge Fuller, Fayette Co.; Joshua Hanna, John Snyder, Wm. J. Anderson, John Thaw, Pittsburg; Gen. David Fullwood, Jacob Trumley, Greensburgh; Jas. Blackstone.

*Secretaries*—T. J. Keenan, of the Union; G. F. Gillmore, of the Post, Pittsburg; James Frees, Salem; W. H. Markle, Greensburgh; Dr. Reiter, Mt. Pleasant.

Col. Kane of Uniontown spoke of the early history of the movement in regard to this road. He thought the route of the Conneltsville Road had been pointed out by nature as the great pathway from the south-east to the mouth of the Ohio and the Great West. Twenty-one years ago, he said, the people of that region, impressed with this truth, had mooted the subject, a meeting was held of which he himself was secretary, and had Pittsburg capital come to their assistance then as it has since, the Baltimore and Ohio road would never have been built to Wheeling, but would have terminated in Pittsburg.

He spoke of the connections it would give to Pittsburg, viz:—Baltimore, Washington, Richmond, and Norfolk—all bound together by an iron band. Such intimate relations with these important localities and the vast regions, abounding in wealth, leading to them, will amply repay Pittsburg for the expenditures of capital and enterprise which she has so nobly and characteristically made upon this road. The speaker asked a continuance of that support in order to a speedy completion of the road, and promised a sure reward from the great results that would undoubtedly follow.

In sixty days twenty-six miles of the road will be open for travel, in three months it will



be opened to Connellsville, and in six months it will be completed to Turtle Creek, where it will connect with the Pennsylvania railroad, and thus afford a direct line of communication between Connellsville and Pittsburgh.

Col. Kane continued by adverting to the advantages which will ensue to the citizens of the counties through which the road runs, and concluded by complimenting in the highest terms the officers and operatives to the Road.

Col. Kane was followed by the Rev. Mr. West, and by Thos. J. Keenan, Esq.

The excursionists returned in the evening to Pittsburg highly pleased with the road.

#### RAILWAY EXPERIENCE IN MASSACHUSETTS.

Our railways are gradually furnishing an experience which is exceedingly valuable, as the basis of future calculation, in regard to the business and profits of Railroads. We have before us, the returns of the Railway traffic in Massachusetts for 1854. They give the following results:

Number of miles.....	1,156
Cost.....	\$59,030,450
Average cost per mile.....	51,100
Receipts (total).....	8,696,251
Average per mile.....	8,525
Expense (total).....	5,435,757
Average per mile.....	4,700
Expenses 62 per cent.	
Profit (total).....	3,260,494
Profit per mile.....	2,900
Profit 6½ per cent.	
Passengers carried.....	12,792,703
Passengers carried per mile.....	11,060
Freight, Tons carried.....	3,757,631
Freight, Tons carried per mile.....	3,300

This table shows several things of great importance, in relation to Massachusetts Railways. 1st., it shows that, though the business is great, the *expenses* are greater in proportion. Sixty-two per cent is a much greater proportion of expenses, than need be in well made roads. Why is it? are the grades high? or, is fuel, and other material required in running much higher? We suppose, that *fuel* must cost the Railways of New England a much higher price, than in the West.

2d., Notwithstanding the large expense incurred, yet the *profits* realized, on a permanently invested property are very fair, viz: 5½ per cent. But, it must be remembered, that this includes the new and unfinished roads, and is, therefore, considerably below what it is on the old roads.

The reported profits were as follows:

Three Roads, Taunton, New Bedford, and Medway Branch.....	10½ per cent.
Three Roads, Nashua, Lawrence, Boston & Maine.....	8½ per cent.
Six Roads, Worcester, Western, Berkshire, Stockbridge, Fitchburg, and Peterboro.....	7 per cent.
Three Roads, Worcester & Nashua, Lexington, and Stony Branch.....	6 per cent.

These fifteen roads comprise nearly half the railway capital of the State, and we see that they pay heavy dividends.

3d., The freights in Massachusetts are much less in proportion, than the passengers; and in this respect its comparison with Western railways is much in favor of the latter. We must believe, in this exhibit, that the railways of Ohio, for example, will be much more profitable than those of Massachusetts.

#### GEORGIA RAILROAD CONVENTION.

The Annual Convention of the Stockholders of the Georgia Railroad and Banking Company assembled and was organized in this city on Tuesday the 15th inst.

As there were no new projects before the body, its deliberations were confined to an investigation of its affairs. We subjoin the report of President King, which presents a very full statement of the business of the Company for the past year, and the prospect for the future:

OFFICE GEORGIA R. R. AND BANKING CO.,  
AUGUSTA, GA., May 15, 1855.

To the Stockholders of the Georgia Railroad and Banking Company.

It appears by the annexed statement of the Superintendent that—

The gross earnings of the year ending 31st March last have been..... \$906,694 41  
Charged with ordinary expenses of management..... \$374,583 78  
Construction account also charged To expenses..... 225,705 23—600,299 11

Nett from Road after charging all expenditures on road account..... \$306,405 30

By the financial statement of the Cashier the gross earnings of the Bank have been..... \$68,205 85

Charged with interests on bonds..... \$49,332 61  
Salaries, agents' commissions, taxes, &c..... 24,579 18—73,904 79

Leaving deficiency in bank receipts..... 5,693 94

Nett profits from all sources..... \$300,706 36

Add amount to credit of profit and loss, 31st March..... 77,208 05

Total to profit and loss, 31st March..... 337,914 41

From this a dividend of \$3.30 per share was declared in April last..... 145,460 00

Leaving a reserved fund..... \$332,454 41

It will be perceived that the usual semi-annual dividend was not paid in October last, though the net profits were fully sufficient to justify it. The omission was occasioned at the time by the prevalence of the epidemic in Augusta, and the southern seaports, by which all business was nearly suspended. The income of the Road is used by the Company in its banking operations, and the maturity of its business paper so timed as to meet dividends at the time they are usually declared. This paper was permitted to lie over almost without exception, and much of it though good, is still unpaid. It was expected, doubtless, by many that this dividend, thus permitted to pass, would have been added to the April dividend, but the Directors, after full consideration, have deemed it inexpedient to do so. In view of the financial difficulties of the country and the large amount of the Company's bonds which falls due in July next, and also in view of the necessity of large outlays for the renewal of the iron on the road beyond Madison, the directors have deemed it to the interest of the stockholders to strengthen the reserved fund to the amount of the dividend passed over. With this increased strength, it is believed that the Company will be able to meet all these heavy disbursements without any interference with dividends hereafter. In coming to this conclusion the Board have assumed that the profits of the last year (the lowest for the last three years,) may be safely relied on for the

future. If there be no mistake in this, the profit and loss account for the next two years will stand thus, in round numbers:

Gross income from road for 1855..... \$906,000  
Ordinary expenses—say..... 374,000  
Extraordinary expenses, as estimated by Superintendent..... 146,000—520,000

Dividend at 7 per cent..... \$286,000 290 920

Add to reserved fund..... \$96,080

The expensive work of building stone culverts and substituting embankment for temporary bridges and trestles, which have been a heavy draft upon the profits of the road for years past, are now near completion, and all other necessary expenditures that will be required for some years, (except renewal of iron,) will be found in the estimate of the Superintendent for the present year. The estimate for 1856 may then be stated thus:

Gross Income..... \$906,000  
Ordinary Expenses..... 374,000  
For New Track—say:..... 100,000—474,000

Dividend at 7 per cent..... \$290,920

Carry to surplus fund..... \$141,080

It will be seen, by reference to the bonded debt of the Company, that if these estimates even approximate accuracy, the present reserved fund and future surplus profits will be abundantly sufficient to pay as it falls due, after paying 7 per cent. dividend, and providing an ample fund to relay the road with new iron beyond Madison. It is assumed in the above estimate that the bank profits will provide for the interest on the bonded debt. It has done so for some years, and afforded a surplus. The small deficiency of the past year is accounted for by \$358,000 of stock held by the Company being unproductive, which had previously afforded an income, and it is hoped may again be profitable after the present year. It is also to be considered that the interest will be reduced as the principal debt is extinguished.

The Board is aware that rival improvements have recently been completed, and others are in progress, which may affect our income, as compared with former years. The completion of the Waynesboro' Railroad, and the extension of the line to Columbus, took from our line a large local travel, and the recent completion of the road to Opelika will affect our through travel to some extent. The completion of the line of road through Virginia and Tennessee to Knoxville, will also, when completed, still further affect our long travel. But by the completion of the Memphis and Charleston Road, the extension of Railroads north and northwest of Nashville now in progress, and the extension of Railroad improvements beyond Montgomery, in the direction of Mobile and Pensacola, now also in progress, the Board hope for such an increase in the business connected with these regions of country as to compensate for these losses.

So large an interest as the Company has in other Roads requires a brief notice from the Board. The Rome Railroad is now paying 7 per cent. and it is hoped may continue to do so. The Atlanta and La Grange Railroad has never paid less than 7 per cent. and the Board are assured will hereafter pay 8. The Nashville and Chattanooga Railroad has paid no dividend since Jan. 1, 1854. By unexpected mountain slides that Company has been put to vast expense and subjected to much embarrassment. The Board are informed,



however, that the present year's business will probably place it in a condition to divide at least a portion of its earnings among the Stockholders. Several important feeders to that road are near completion; and a road with such connections, and running through a country so fertile and productive, must do a heavy business, and pay good profits at no distant day. The profits of the Waynesboro' Railroad are said to be increasing; but the lease of that road to the Central Railroad expires in January next. The future profits will probably have to be applied to the purchase of outfit for some time to come. The loss of interest on these large unproductive investments is of course seriously felt by the Company, but it is hoped the loss may be only temporary.

The Directors refer to the Superintendent's Report for the details of business of the past year, and for the alleged causes by which it has been affected. Among these causes the most important is the partial obstruction at Augusta. The Board do not dwell on this subject, because they have no independent power over it. It is the right and the duty of the city, as they understand them.

But there seems to be a growing conviction everywhere that the prosperity of a commercial city depends mainly upon its capital, the probity and enterprise of its merchants, and above all upon the natural advantages of its business location, and that it is actually injured by any of those obstructions which tend to throw it off the great thoroughfare of traffic and travel. Should Charleston hereafter consent to the extension of one or more tracts of the South Carolina Railroad to the business wharves of the city, and Augusta permit such approximation of tracts, as indicated by the Superintendent, it is believed by many that both cities would be benefited whilst the advantage to the line of roads from Charleston to the Mississippi can scarcely be appreciated.

Our Company, in common with most others at the South, has suffered a good deal by fire during the late dry weather, and we met with some other disasters of an unusual character in September and October last, which have been mentioned by the Superintendent in his Report. By these misfortunes the expenses of the year were considerably increased, though the damages were by no means as great as by many supposed. With the exceptions referred to, the trains have run the past year with great regularity, and freedom from accident of any kind.

JOHN P. KING, President.

—Augusta Constitutionalist.

#### FORT WAYNE & MISSISSIPPI R. R.

At a meeting of the stockholders of this road, held at Rochester, Fulton county, on Wednesday last, the 28d inst., the following were elected Directors for the ensuing year: R. C. Schenck of Ohio; W. J. Larde and G. W. Spitler of Rensselaer, T. H. Kays of Winamac; K. G. Shryock and D. R. Pershing of Rochester; John Comstock of Liberty Mills; Lot S. Bayless and T. Tigar of Fort Wayne.

The board organized and re-elected Hon. R. C. Schenck President; L. S. Bayless, Vice President; and R. E. Flemming Secretary and Treasurer. After a general discussion and review of the position, resources, and prospects of the road it was resolved that the time for action had arrived. An immediate sur-

vey and location of the line from Fort Wayne to Rochester was ordered, with a view of placing it under contract, if the stock subscriptions could be increased to a sufficient amount to justify such a course. A wealthy and energetic company of contractors have made proposals to do the work on highly favorable terms, and we now feel confident that a beginning is about to be made in this great work, which will result in its ultimate completion. All that is needed is such an increase to the stock subscriptions as will enable the directors to go ahead. Portions of the work, from Rensselaer to the N. A. & Salem Railroad, and thence to Winamac, were also ordered to be placed under contract.

Mr. Ferguson, Engineer of the Fort Wayne & Tiffin Railroad has undertaken the survey and will be in the field with a full corps of engineers in a week or ten days.

On the Illinois division of the road, too, some portions of the work have been placed under contract, and we have strong hopes that by fall the road will be placed in such a position as to remove the doubts of the most skeptical as to its construction. Now is the time to come forward and aid the good work. The road WILL certainly be constructed—and if sufficient means are placed in the hands of the Directors at once there will be no delay. We do hope our citizens will now feel it their duty to come forward and aid the work—and at the same time wipe away the reproach which at present attaches to them, of having taken less stock in a work of this magnitude than has been subscribed by the citizens of the smallest town along the line.

READING RAILROAD.—Amount of Coal transportation on the Philadelphia and Reading Railroad, during the week ending Tuesday, May 10th, 1855:

	Tons.	Cwt.
From Port Carbon.....	17,242	05
" Pottsville.....	2,430	13
" Schuylkill Haven.....	24,864	09
" Auburn.....	479	19
" Port Clinton.....	8,017	12

Total for the week.....53,034 18  
Previously this year.....715,348 06

Total.....768,383 04

To same time last year.....642,252 01

SCHUYLKILL CANAL.—Amount of Coal transported on the Schuylkill Canal for the week ending May 10, 1855:

	Tons.	Cwt.
From Port Carbon.....	11,262	08
" Pottsville.....	1,580	02
" Schuylkill Haven.....	12,681	05
" Port Clinton.....	1,571	00

Total for week.....27,094 15  
Previously this year.....196,890 15

Total.....223,985 10

To same time last year.....188,371 03

PENNSYLVANIA RAILROAD.—Monthly Statement.—Receipts of the road for the month ending

	1855.	1854.
April 30.....	\$351,349.29	\$325,156.17
Receipts for same month last year.....	321,156.17	
Increase.....	\$34,193.12	
Increase from passenger business.....	25,819.67	
" " freight.....	8,373.45	
	\$34,193.12	

BUSINESS OF THE PHILADELPHIA AND READING RAILROAD COMPANY, for the month of April:

	1855.	1854.
Received from Coal.....	\$340,128.93	\$236,861.91
" Merchandise.....	32,347.88	18,109.10
" Travel, &c.....	28,999.47	22,720.86
	\$402,476.35	\$277,691.96

Transportation, Roadway, Dumpage, Renewal Fund, and all charges.....171,783.18 130,313.02

Net Profit for the Month.....230,693.17 147,378.94  
" for previous 4 Months.....481,124.20 288,274.66

Total Net Profit for five Months.....\$711,817.37 \$435,653.60

RAILROAD MEETING.—The Eaton Gazette states that a meeting of the citizens of Talbot and the adjacent counties was held in that place on the 22d inst., for the purpose of taking measures for immediately commencing a Railroad to join the Delaware Railroad at the Maryland line.—*Baltimore American*.

BALTIMORE AND POTOMAC RAILROAD.—A meeting of the Commissioners of this projected road will be held in Baltimore on the 20th of June. The survey of the road has been completed and the meeting of the Commissioners is called with a view to taking active measures for its commencement. The contemplated road is to fill the only break in a continuous railroad connection from Maine to Alabama, now existing between Washington city and Acquia creek. The route is to extend from Baltimore to a point on the Potomac, in Charles county, opposite to Acquia creek, and it is expected to establish a transit between Baltimore and Richmond in six hours, and thus to attract a considerable amount of travel to this city now diverted at Charleston by steamers to New York.—*Id.*

## Miscellaneous and Mechanical.

### STEAM HAMMER.

The following description of a steam-hammer in use in England, we find in the *Mining Chronicle*:

"Mr. Robert Morrison, of Newcastle-on-Tyne, Eng., has made some improvements in the steam-hammer, his object being to prevent the great wear and tear, and liability to that derangement of breakage which, he states, has been experienced in the ordinary steam hammers, forming a serious drawback to the use and efficiency of this valuable tool. In Nasmyth's hammer, the head is attached to the piston rod, and is guided by side checks in the frame, a shallow rib entering a groove on each side of the hammer head. Considerable play is necessarily left for the fall of the hammer, causing a violent shake and jar at each blow; while the blow, being seldom in the centre of the face, a side jar is the result; the constant repetition of these shocks indents and wears away the hammer face and guides, increases the side play to an injurious extent, displaces the packing, and often breaks the piston rod. In Condie's hammer the motion is reversed, the piston and rod are fixed, the cylinder forms the hammer, having the head fixed below, and is guided by cubbing against the side checks of the frame at the top and bottom: the steam is admitted through the piston rod, which is hollow. By this arrangement the jar is not communicated to the piston, but the rubbing surface of the hammer guides are exposed to a similar injurious action, and the blow of the hammer is liable to break the cylinder.

In Morrison's hammer the cylinder remains fixed; the piston rod itself forms the shaft of



the hammer, being enlarged in diameter, and prolonged through the top of the cylinder, above which the upper end is steadied by sliding between guides. The hammer is guided by two large stuffing-boxes at the top and bottom of the cylinder, works with steadiness and freedom from friction, the rubbing surface being a turned cylindrical piston rod, fitting closely in stuffing-boxes, instead of sliding loosely between the checks of the frame. The hammer head of the machine which the patentee has had in operation at the Ouseburn Engine Works, Newcastle, weighs two tons, with a clear fall 3 1-2 feet; it has been tried with 35, 40, and 50 lbs. pressure of steam, but has been found to work best at 40 lbs. per square inch. The hammer bar and piston rod are of wrought-iron, ten inches in diameter, the piston forged solid upon it in the middle of its length, a groove being turned upon its circumference to receive a single brass packing-ring, 1-4 inch thick, packed behind with hemp. The upper cross head is also forged in one piece with the bar. The hammer at the Ouseburn Works has been working day and night, double shift, for five months, during which period there has not been half an hour lost by any derangement in the hammer, the packing remains as good as when put on, and the cover has not been taken off since the hammer started. The large stuffing box was packed with hemp, had not been unpacked for nine weeks, and no enlargement perceptible in the gland.

"With the working piston rod and hammer in one solid piece, the liability to fracture and derangement is much diminished, whilst the hammering blows are of superior solidity and effect; and the bolting of the steam cylinder between the frame standard, immediately above the anvil, provides a most powerful stay for tying the frames well together, and preventing all lateral springing. The hammer face is thus most accurately directed down upon its work, by which shoulders, collars, and other projections, can be forged down with certainty to their proper size and form by the side of the hammer without any oblique thrust. The height of the arch in this machine is important, and the position of the steam cylinder in front of the standards realizes a great advantage, as, when the hammer is actually between the frame pieces, the mass of iron must be angled before it can be hammered; or, if it cannot be angled, the man must stand in a dangerous position beneath the arch; but, in the patentee's arrangement, the hammer is quite clear of the framing, so that the forgerman can swage, shape, or cut, any work he may have in hand, without the necessity of standing beneath the arch."

The difficulties mentioned above, have been found to be in practice, serious drawbacks to the usefulness of this now indispensable ma-

chine. But there is still a greater objection which is equally as applicable to the Morrison as to the other forms of the hammer in which the hammer is fixed on the piston rod—the gradual thickening of the piston rod from the impetus of its own weight and that of the piston. It will be readily seen that on every blow of the hammer the effect on the piston rod is the same as though a blow had been struck on the upper end of the rod with a hammer of the weight of the piston; and that this process will, in course of time, materially change the shape of the rod. This, we believe, is the principal reason why our machinists usually prefer the fixed piston and movable cylinder.

#### The Shipping of the World.

The London Daily News has a long and interesting article headed "The Shipping of the World," some of the details of which our London Correspondent has arranged in a tabular form, in order to obtain a bird's eye view of this important subject. Of course these statements relate only to the mercantile marine of the respective countries.

Countries.	No. of Vessels.	Tonnage	Entered & Cleared, 1854.	Vessels.	Tonnage.
G. B. & Colonies,...	35,960	5,043,270	312,854	42,573,369	
United States,.....	4,734,902	.....	40,000,010	.....	
France,.....	14,354	716,000	.....	10,000,600	
Spain & Colonies,...	7,986	379,421	11,526	1,456,841	
Portugal,.....	836	86,156	.....	.....	
Italy & Sardinia,...	17,066	546,021	.....	.....	
Austria,.....	7,600	34,000	.....	.....	
Greece,.....	3,970	264,981	.....	.....	
Turkey,.....	2,200	182,000	.....	.....	
Egypt,.....	230	38,790	.....	.....	
Belgium,.....	149	36,000	4,792	706,605	
Holland,.....	3,048	456,459	15,771	2,472,075	
Hanover & Olden-	.....	.....	.....	.....	
burg,.....	500	40,000	.....	.....	
Hamburg,.....	369	119,834	8,920	1,686,749	
Do. coast'g trade,...	2,000	101,661	.....	.....	
Lubeck,.....	70	9,389	2,400	430,000	
Bremen,.....	.....	.....	3,000	480,000	
Mecklenburg,.....	150	.....	1,000	.....	
Prussia,.....	1,940	368,800	10,315	1,063,736	
Denmark,.....	4,695	189,190	107,571	1,074,108	
Norway,.....	.....	368,632	19,447	1,928,022	
Sweden,*.....	886	147,928	.....	1,372,072	
Russia,.....	800	.....	17,072	3,090,814	

\* The coasting trade about one-third more in addition.

About seven-eighths of the Russian traffic is carried on by foreign ships.

	Vessels.	Tonnage.
Central and South America,.....	1,530	193,725
Sandwich and Society Islands,.....	100	3,000

The British colonies in the Pacific have several vessels, and the Eastern possessions, Siam, China, and the islands in the Pacific Ocean, have large fleets for trade or piracy, which must not be omitted in an estimate of the shipping of the world. The floating tonnage of the civilized world is estimated to consist of 136,000 vessels, with an aggregate tonnage of 14,500,000 tons. The number of seamen in all these vessels is supposed to be about 800,000, and, including the Eastern States, China, &c., of the maritime population of which we have not any accounts, there must be at least a million of persons engaged at sea and generally on the ocean. This rapidly increasing floating population is one of the curiosities of modern civilization. The Daily News concludes the article with the following interesting observations.

"Nobody has the least apprehension of the seamen, or thinks they can be dispensed with, however little they may be under control. Whatever may be the voluntary patriotism of seamen, there is no power to constrain them to reside in one spot or to return to it. Vol-

untarily they may preserve their allegiance, but they are always at liberty to shake it off. In each and every one of the maritime countries of the world a good seaman finds employment. They and their occupation, then, serve as peaceful links to connect all nations. Formerly, as, mankind wandered about in search of a home, as sea kings looked after new countries to conquer, the maritime population of the world bore a considerable share in its history. Latterly this population has not been considered apart, and has separately borne no share except as subsidiary to political power in the changes of society. But the time is coming when its numbers and its rapid extension in the United States—the shipping has been quadrupled, while the population has been only doubled—must force it on the attention of historians and philosophers. Of late art has added much to its power. Steam has given it feet, fleetier than wings. The attention of scientific men is now being drawn to it, and chiefly by the labors of Lieut. Maury, of the United States, a large army of observers of natural phenomena, scattered over every part of the ocean, have been suddenly called into existence. Every ship captain has been taught how to profit by his opportunities and to become a registrar of facts. As it has become numerous and influential, the profession has become ennobled, and, resuming its old place in civilization, the maritime population is destined again to take a lead, and, as they at first helped to scatter, they now cement the various nations of the world into one society. A comparatively short time has elapsed since Holland, now possessing less than a fiftieth part of the seaman and tonnage of the world, was the greatest naval Power in existence, and a match nearly for all other maritime nations. Holland has not declined since then, but other maritime nations have risen, and the impulse she strengthened, is continued and increasing throughout the world. Trade, as an essential part of society, and shipping to carry it on, are comparatively in their infancy. That every part of the ocean may yet be as crowded as the British channel is not improbable. America is fast filling with people growing in intelligence. Every part of her coasts is likely, at no distant day, to be as well provided with vessels as the shores of the Hudson. That the waters of the ocean are to become peopled like the land can not be supposed; but within a period, judging from the rapidity of the progress in the last hundred years, likely to be extremely short in relation to the historical period of the world's existence, they may be all as crowded with vessels as the channel."

The writer of this article says accidental collisions between vessels at sea are very much on the increase, but he does not know that they are more so than the rapid increase of the number of vessels navigating the ocean might be supposed to occasion. The increase of the speed of the ships and the increase of their size are also elements which ought to be taken into the calculation. It is to be hoped that there is an increase of knowledge and carefulness on the part of the captains and crews; so that perhaps there is not, generally speaking, any very great increase of danger from collision. An Admiralty return has just been published which shows that the wrecks on the coasts and in the seas of the United Kingdom during 1854 were 987, being 153 more than those in 1853, while the loss of life increased from 889 to 1,549. This return shows collisions at sea to be greatly on the increase.



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHARES.	OFF'D.	ASK'D.
Alabama and Tennessee.	1st mortgage, convertible in 1872.	7 1872					
Baltimore and Ohio.	Transferable. Taxed.	6 1885	79%		100	44	44
Do do	Coupons. Not Taxed.	6 1875					
Do do	" " " "	6 1880					
Do do	" " " "	7 1860					
Do do	" " " "	6 1885					
Bellefontaine and Indiana.	1st mortgage, convertible.	6 1866	98		50	42	
Buffalo and Penn. State Line.	1st mortgage, not convertible.	6 1866					
Chicago and Rock Island.	1st mortgage, convertible.	7 1870	94	95	85	89	
Chicago and Mississippi.	1st " " "	7 1862					
Do do	2d " " "	7 1874	65				
Chicago and Aurora.	1st " " "	7 1866					
Cincinnati, Newcastle and Mich.	Real Estate.						
Cleveland, Columbus, and Cincinnati.	1st mortgage, convertible.	7 1859			100	106	108
Do do	No mortgage, convertible.	7 1855					
Cleveland and Mahoning.	1st mortgage.	7 1861			100		
Cleveland, Painesville, and Ashtabula.	2d " not convertible.	7 1861					
Do do	1st " convertible.	7 1860			40	41	
Cleveland and Pittsburgh.	1st " 2d sec. convertible.	7 1873					
Cleveland and Toledo.	1st mort. not conv. 73.	7 1863	74%	76	50	80%	82
Cleveland, Zanesville, and Cincinnati.	1st mortgage " till 1855.	7 1867	75	80	72	73	
Cincinnati, Hamilton and Dayton.	2d mortgage.	7 1868	83	85			
Do do	1st mortgage, real estate, conv.	10 5 & 10 y's	27	30			
Cincinnati, New Castle and Michigan.	2d " " "	8 44%			15	15	
Cincinnati Western.	2d " " "	7 67%	68		45	46	
Cincinnati, Wilmington and Zanesville.	Real Estate.	8 1859	40		13	15	
Cincinnati, Indianapolis and Chicago.	1st mortgage, convertible.	7 1862	75	76			
Cincinnati and Chicago.	2d " " "	7 60	61				
Columbus, Piqua and Indiana.	1st mortgage, convertible.	7 1859	80				
Do do	2d " " "	7 1863	65	66	50	93%	100
Columbus and Xenia.	Income.	10 72	75		50	25%	30
Covington and Lexington.	1st " " "	7 1867			50	20	22
Do do	1st " " "	7 1862					
Dayton and Michigan.	1st " " "	7 1864	26	30			
Dayton and Western.	1st mortgage.	7 1862	60		25	27%	30
Dayton, Xenia and Belpre.	1st mort. guaranty Mich. S. R. R.	7 1862	80	81			
Eaton and Hamilton.	1st mortgage.	7 1862					
Erie and Kalamazoo.	1st mortgage.	7 1862					
Evansville and Crawfordsville.	1st mortgage.	7 1862					
Fort Wayne and Southern.	1st mortgage.	7 1862					
Franklin and Warren.	1st mortgage.	7 1862					
Galena and Chicago Union.	Pledge of second section, convertible.	10 1853-6	92%		100	96	100
Hillsboro and Cincinnati.	1st mort.	7 55	60		50	20	25
Illinois Central.	1st mortgage, not convertible.	6 1875	75%	80	100	96	100
Do do	Freeland.	7 71%	74				
Indiana Central.	1st mortgage, convertible.	7 1866	63%	75	50	45	50
Do do	1st " " "	10 1857	80		50		
Indianapolis and Bellefontaine.	1st " " "	7 1860-1	75		25	50	50
Indianapolis and Cincinnati.	Dividend.	7 63	64		50	58	60
Indianapolis and Lafayette.	1st " " "	7 1861			50		
Jeffersonville.	1st " not " "	7 1861			36		
Junction (Ohio).	1st " " "	7 1867			50	15	17
Do Indiana.	Real Estate.	10 72	73			12%	
La Crosse and Milwaukee.	1st mortgage, not convertible.	8 1864	77	82	100		
Little Miami.	1st mortgage, convertible.	6 1863			50	100	101
Do do	" " " "	7 1861					
Louisville and Nashville.	" " " "	7 1858	93%		100		
Lyons', Iowa, Central.	1st mortgage, convertible.	7 1873					
Mad River and Lake Erie.	1st mortgage, convertible till 1855.	7 1855-6	75		50	27%	30
Do do	2d " " "	7 1866	75				
Do do	Dividend.	7 1860	75				
Madison and Indianapolis.	1st mortgage, convertible after 1853.	6 1861			50		
Marietta and Cincinnati.	Domestic Bonds.	7 1868	57%	60	50	25	30
Do do	2d " " "	7 1868			50	25	30
Hillsboro and Cincinnati.	1st " " "	7 1868					
Maysville and Big Sandy.	1st mortgage, convertible.	6 1873			50		
Maysville and Lexington.	1st mortgage, convertible.	6 1873					
Memphis and Charleston.	1st mortgage, convertible.	6 1873					
Michigan Central.	No mortgage, convertible.	8 1860	97			88%	90
Do do	" " " "	8 1855-6					
Do do	" " not " "	8 1857-8					
Michigan Southern.	1st " " "	7 1860-90	100			101%	103
Milwaukee and Mississippi.	1st " " "	8 1862					
Mobile and Ohio.	1st mortgage 6s. 1884						
Nashville and Chattanooga.	mortgage on 1st section.	10 1858-62			50	20	20
New Albany and Salem.	1st " on other section, convert.	8 1864-75					
New Castle and Richmond.	1st " convertible.	6 1873					
New York Central.	1st mortgage, not convertible.	7 1867	103%	104		93%	95
New York and Erie.	2d " convertible.	7 1871	84%	85	100	49	50%
Do do	1st " " "	7 1883	94%	95			
Northern Cross, Ill.	1st mortgage, convertible.	8 1873					
Northern Indiana.	1st " not convertible.	7 1861	79		97	98	
Do do	1st " Goshen line.	7 1868	89%	90			
Do do	Construction Bonds.						
Ohio Central.	1st mortgage, convertible.	7 1861	61		40	41	
Ohio and Mississippi.	2d " " "	7 1860	66	60	50	22%	30
Ohio and Indiana.	1st " " "	7 1867					
Ohio and Pennsylvania.	1st " " "	7 1865			50		
Do do	Income. No mortgage, convertible.	7 1872					
Pacific, Mo.	1st mortgage, convertible.	7 1866	100	110			
Panama.	" " " "	7 1873			99	100	
Parkersburg (or Northwestern Va.).	1st mortgage, convertible till 1860.	6 1880			50	43%	40
Pennsylvania.	1st " " "	7 1872			25	30	
Peru and Indianapolis.	1st " " "	7 1872			50		
Rock River Valley Union.	1st " " "	7 1860					
Sandusky and Mansfield.	2d " " "	10 1853-7					
Do do	1st " income.	7 1861			50	50	51
Scioto and Hocking Valley.	1st mortgage, convertible.	7 1865					
Southwestern, Tennessee.	1st " " "	8 1862-72	75%				
Springfield and Columbus.	2d " " "	8 1865					
Staubenville and Indiana.	1st " " "	6 1866					
Terre Haute and Alton.	1st " " "	7 1863	87	88	50		
Do do	2d " " "						
Terre Haute and Richmond.	Guar. of C. C. & C.	1883					
Toledo, Norwalk and Cleveland.							
Do do							
Do do							



## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D
U. S. Loan.....	6	1856	102	105
Do.....	6	1862	110	113
Do.....	6	1867	116½	118
Do.....	6	1868	120	122
Do (int. ceased July 1) 5		1853		102
Do Coupons.....		1862		118
Do.....	6	1867		118
Do.....		1853		101

## STATE.

Alabama.....	5			
California.....	7	1870	89	90
Arkansas.....	6			96
Georgia.....	6		95	99½
Do.....	7			
Illinois Canal Bonds.....		1860		
Do do registered.....		1860		
Do do.....		1847		
Do do registered.....		1847		
Do do Internal Imp't. 6		1847	94	95
Do Interest do.....			64	64
Indiana.....	5		84	85
Do.....	2½		53	54
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	97	
Do.....	5			

Louisiana.....	6		91½	92
Michigan.....	6		97	98
Missouri.....	6		93½	95
New York.....	6	1860-61	108	110
North Carolina.....	6		99	100
Do.....	6	1856	101½	
Do.....	6	1860	104½	105
Do.....	6	1870	111	112
Do.....	6	1875	104	106½
Do.....	5	1855		
Pennsylvania.....	6			
Do.....	5	1870	87	90
Tennessee, long loan.....	6	1890	94	95
Do Coupons.....	5			
Virginia Coupons.....	6	1886	97½	98

## CITY SECURITIES.

Albany.....	6	1871-81		97½
Allegheny.....	6	1875-7		77
Baltimore.....	6	1870-90	91½	92
Do.....	5	1865		
Boston Bonds.....	4½	1860		
Chicago.....	6	1873-7	92½	95
Cleveland.....	6	1879	101½	102½
Cincinnati.....	6	1861-92	89½	90½
Do.....	6	1897		
Do.....	5	1863		
Do W. W.....	6	1865		
Covington.....	6	1857	74½	
Lawrenceburgh, Ia.....	7			
Louisville.....	6	1880	84	89
Memphis.....	6	1882		
New York.....	7	1857	100½	
Do.....	5	1858-00	96	96
Do.....	5	1870-5	97	100
Do.....	5	1890		
Philadelphia.....	6	1876-90	87½	88
Pittsburgh.....	6	1869-73	75½	76½
Do coupons.....	6	1883		
Racine.....	7	1873	61½	63
St. Louis.....	6	1870	79	80
Wheeling.....	6	1872	70	72

## COUNTY BONDS.

Bourbon, Ky.....	6	1881		
Darke, O.....	7			
Fairfield, O.....	7	1862		
Fayette, Ky.....	6	1881-3	75	75
Hancock, Ky.....	7		79	80
Mason, Ky.....	6	1881	69	66½
McCracken Co. Ky., endorsed by				
New Orleans and Ohio R. R.				
St. Louis.....	6	1866	76	77
Do.....	7	1871		

## BANKS.

American Exchange Bank, N. Y.....		105½		
Ohio Life Insurance and Trust Co.....		85½	90	
Washington Insurance Co.....		84	85	
City Insurance.....		70		
Cincinnati Insurance Co.....		84		
National Insurance.....		76	80	

## KENTUCKY.

Bank of Kentucky and Branches.....				
Northern, and Branches.....			100	
Southern, and Branches.....				
Bank of Louisville.....			93	
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....		105	106	
Commercial Bank of Kentucky.....				

## INDIANA.

State Bank and Branches.....				
TENNESSEE.				
State Bank and Branches.....				
Union.....				
Planters.....				

## LAND WARRANTS.

160 acre warrants.....	Off'd.	Ask'd.
80 acre warrants.....	\$176	
40 acre warrants.....	88	
	44	

## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	½	¾
Boston.....	Sight.....	½	¾
Philadelphia.....	Sight.....	½	¾
Baltimore.....	Sight.....	½	¾
New Orleans.....	Sight.....	½	¾
England.....	Sight.....	110	110½

## SPECIE.

California clean, p. oz.....	\$17 60	@	\$17 65
Spanish Doubloons.....	16 75	@	16 75
Patriot Doubloons.....	15 75	@	15 80
Sovereigns.....	4 85	@	4 87
Guineas.....	5 09	@	5 00
American, new.....	1 00	@	1 00
American, old.....	1 06	@	1 06
Portuguese.....	1 00	@	1 00½

## SILVER.

American Dollars.....	1 04	@	1 04
American Halves.....	1 04	@	1 04½
Spanish Dollars.....	1 12	@	1 13
Spanish Quarters.....	1 00	@	1 01
Mexican Dollars.....	1 05½	@	1 06
Five Franc pieces.....	97½	@	98

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

## MERCHANTS' EXCHANGE,

## AND AT PRIVATE SALE.

## BY HEWSON &amp; HOLMES.

For the week ending May 30, 1855.

\$1250 Scioto & Hocking Valley R. R. Co., 7 per cent. Income Bonds.....	50		
2000 Ohio & Miss. R. R. Co., 7 per ct. 2d Mort. Bonds.....	56		
5000 City of Cov. 6 per cent. Bonds due Sept. 1, 1857.....	74½	(& int.)	
1000 Hillsboro & Cin. R. R. Co., 7 per ct. 1st Mort. Bonds.....	55		
2000 Pendleton Co., Ky., 6 per ct. Bonds due in 1883.....	70		
6000 Cin., Wil. & Zanesville R. R. Co., 7 per cent. 2d mort. Bonds.....	67		
1000 Cin. & Chicago R. R. Co., 8 per cent. Real Estate Mt. Bonds, due in 1859	40	(& int.)	
2000 Cov. & Lexington R. R. Co., 7 per cent. 2d mort. Bonds.....	65		
3000 Cov. & Lexington R. R. Co., 10 per cent. Income Bonds.....	72	(& int.)	
40 Shares Cov. & Lexing. R. R. Stock	25		
10 " " " " " "	25½		
60 " " Little Miami " " "	100		
34 " " Cin., Ham. & Dayton " " "	72		
32 " " Columbus & Xenia " " "	93		
35 " " " " " " "	93½		
180 " " Ohio & Mississippi " " "	23	(& int.)	
200 " " " " " " "	22½		
100 " " Cincinnati & Chicago " " "	12½		
100 " " " " " " "	13½		
100 " " " " " " "	14½		
500 " " " " " " "	15		
20 " " Indianapolis & Cin. " " "	58		
100 " " Junction " " "	10		
16 " " Ind. & Bellefontaine " " "	50		
20 " " Cin., Wil. & Zanes. " " "	45		
70 " " Mad River & L. Erie " " "	27½		
10 " " Hillsboro & Cin. " " "	20		
120 " " Ft. Wayne & South. " " "	13		
30 " " Jeffer. & Indianapolis " " "	36		
48 " " Eaton & Hamilton " " "	27½		
155 " " Central Ohio " " "	40		

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

E. F. SATTERTHWAITE, STOCK BROKER, LON.  
May 11th, 1855.

Cleveland & Pittsburgh 1st Mort. 1850.....	@	80
Erie 3d Mortgage, 1863.....	84	85
" Sinking Fund.....	79	80
Grand Trunk (Canada) Debenture.....	88	90
Great Western " conv.....	103	105
" " non-conv.....	98	100
Illinois Central 1st Mort. 7's.....	67½	68½
" " 6's.....	64	66
Marietta & Cincinnati 1st Mort.....	77	82
N. York Central. No Mort. Not Conv.....	81	83
" " conv.....	93	95
Ohio & Mississippi 1st Mort.....	89	90
Pennsylvania 1st Mort. conv.....	88	90
" " Sterling 2d mort.....	88	90

## Monetary and Commercial.

The week that has just passed, may be characterized as a dull one. No new feature of importance has been developed either in the commercial or monetary world. Attention seems to be mainly directed to the coming crops; if these prove abundant, we shall undoubtedly be all right again, if otherwise we must still proceed under reefed sails and in storm trim. Though it is not

at all probable that we can possibly have a year in any degree as disastrous as the past.

The demand for money is moderate, and the supply abundant for first class borrowers. Second rate and those less known, still find it difficult to negotiate loans.

There have been some transactions in stocks; but we may not look for the ordinary activity, until general business assumes a more cheerful and active tone. Meanwhile sellers will be influenced by necessity or fear, and buyers will be few.

Advices from the East continue to note ease in monetary affairs. The supply of money continues easy, and confidence is improving. There have been large shipments of specie to Europe, and large receipts from California and the interior.

Foreign exchange is somewhat active. Sterling is held at 9½ to 10½.

Stocks are not as buoyant as formerly reported, and transactions somewhat limited. Prices are, however, rallying.

SALES AT THE NEW YORK STOCK BOARD, May 25.

18,500 Virginia 6's.....	97½
1,500 Indiana State 5's.....	84½
26,675 Indiana 2½'s.....	53
15,000 Missouri 6's.....	91½
3,000 California 7's '70.....	89
1,000 Illinois Internal Imp. '47.....	94½
4,000 Erie Conv. '71.....	84
2,000 " Bonds '75.....	87½
5,000 Nor. Ind. 1st M. G. L.....	89½
5,000 Panama 2d issue.....	101½
1,500 Ill. Cent. R. R. Bonds.....	75½
1,000 " " " " F.....	71½
1,040 Clev. & Toledo Div.....	76
2,000 New York Cent. Bonds.....	88½
600 " " " " 7's.....	103½
5 Shares Chicago & Rock Island R. R.....	86
100 " Erie R. R.....	49
13 " Mich. So. & Nor. Ind. C.....	101½
200 " Harlem.....	28½
150 " Reading.....	88
30 " Mich. Cent.....	88½
75 " Panama.....	99
131 " Galena and Chicago.....	96
100 " Cleveland & Toledo.....	80½
11 " Clev., Col. & Cin.....	106

Quarterly Rates of Postage, when paid in advance, on Newspapers and Periodicals sent from the office of publication to actual subscribers.

Weekly newspapers (1 copy only) sent to actual subscribers within the county where printed and published, free.

Newspapers and periodicals not exceeding 1½ oz. in weight, when circulated in the State where published, 3½ cents.

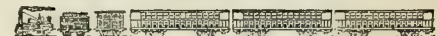
Newspapers and periodicals of the weight of 3 oz. and under, sent to any part of the United States, 6½ cents.

## DIRECTIONS.

1st. Publishers of newspapers and periodicals may send to each other from their respective offices of publication, free of postage, one copy of each publication; and may also send to each actual subscriber, enclosed in their publication, bills and receipts for the same, free of postage.

2d. Quarterly payments in advance may be made either at the mailing office or the office of delivery. When made at the mailing office, satisfactory evidence of such payment must be exhibited to the postmaster at the office.

## Terre Haute &amp; Richmond R. R.



## Summer Arrangement.

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 22½ hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

## TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855.

S. HUESTIS Superintendent.



## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

**NOTICE TO CONTRACTORS.**—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Obion (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburgh and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

BECKER & RUST,  
General Contractors.

may 17-4t.  
[Railroad Journal please copy.]

## STEREOTYPE FOUNDRY,

AND AGENCY OF

L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of **STEREOTYPING**, including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order **PRINTING MATERIALS OF EVERY KIND**,

AT THE FOUNDRY PRICES.  
C. F. O'DRISCOLL,

168 1-2 Vine Street, Cincinnati, O.

## DURYEE & FORSYTH'S

PATENT

PLATFORM SCALES.



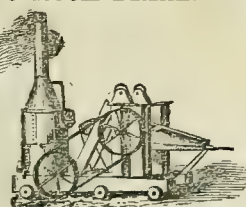
WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

BEWSON & HOLMES,  
83 and 85 Walnut Street.

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DESIGNED FOR Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



A silver medal, the highest prize, was awarded these Machines at the World's Fair. Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York

nov17+

## Railroad Record

PUBLISHED EVERY THURSDAY MORNING,  
By T. WRIGHTSON & CO.

Office No. 167 Walnut Street,  
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J. A. JAMES, } ASSOCIATE EDITORS.  
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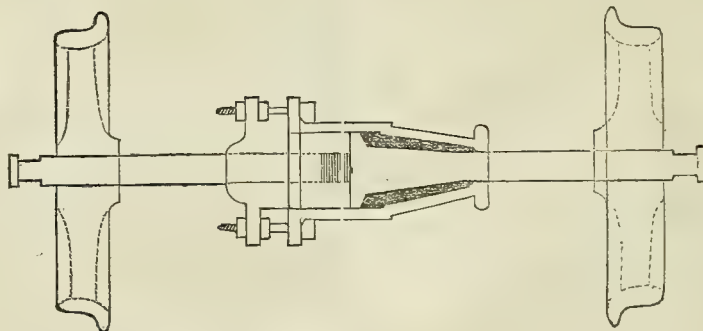
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Railroad Record Office, 167 Walnut st. Cin.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads; the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

SAMUEL L. DENNEY,

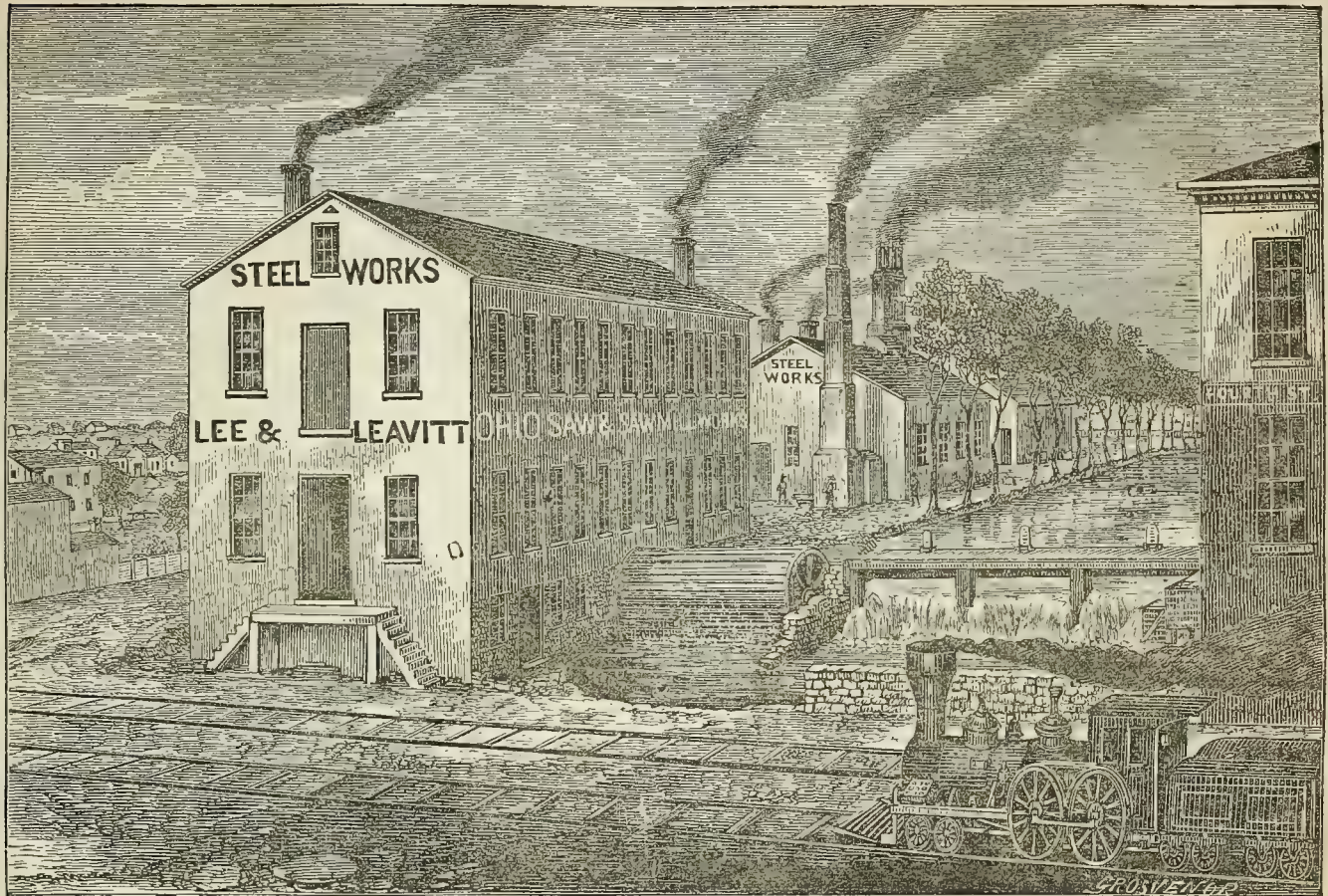
Christiana, Pa.

Or, to CHRISTIAN UMBLE,  
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And of Cast Steel Mandrils, Railway Frog Points, Sledge Hammers, and every kind of Cast Steel Tools.  
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Price, one dollar each. Postage on the Curves, five cents; on the Excavations and Embankments, eight cents. For sale by

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Sept. 21-3\*

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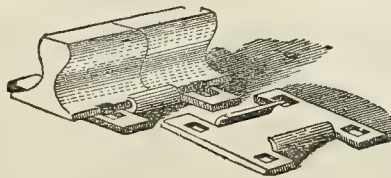
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Nov. 5-1f

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THE undersigned will continue to manufacture with increased facilities, HOOK & FLATHEAD R. R. SPIKES, of all Patterns, WROUGHT and CAST CHAIRS, and FASTENINGS, BOILER RIVETS, BOLTS, SHIP and BOAT SPIKES, &c., &c.

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Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th, 1853. mar1-tf

Indianapolis & Cincinnati Railroad.  
OFFICE—INDIANAPOLIS, IND.

Col. T. A. Morris, ..... Pres't  
1y mar. 27.

Indiana Central Railroad.  
OFFICE—INDIANAPOLIS, IND.

I. S. Newman, ..... Pres't

Buffalo & Erie Railroad.  
OFFICE—BUFFALO, N. Y.

G. Palmer, Pre'st. Buff. & State R. R. } C. C. Dennis,  
C. H. Reed, Pre'st. Erie & North E. R. R. } Supt.  
1y mar. 27.



**28**  
**PLATT STREET,**  
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**IRON BOILER TUBES,**  
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**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
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WHALEBONE AND STEEL WIRE BRUSHES.  
**Artesian Well Tubes**

Screwed Flush inside & outside.

**FREE-JOINT TUBES**  
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**ings, Railings,**  
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**HOLLOW SLAB WATER TUYERES,**  
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**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

For warming air, boiling water and heating ovens.

**ANNUAL**  
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More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

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**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**  
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**PATENTED CAST-STEEL TIRES,**  
**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

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**PLATT STREET, New York.**

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**CINCINNATI OHIO.**

STOP COCKS, Bibb, Flange, Valve, Gauge, and Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes, Couplings, Salt Well, and Hose Joints; Steam Whistles, Distillery Work, General Brassers, Anti Friction Metal, Spelter Solder, and Copper Rivets.  
 Pumps of all descriptions, Brass and Composition Castings, Dixon's best Black Lead Crucibles.  
 Also, Dr. Ransom's Patent Constant Suction Pump for Railroad Water Stations.

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 I WOULD respectfully call the attention of Railroad Companies and Contractors to my facilities for **NOTCHING RAILROAD IRON**

Suitable to be spiked in the Chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. Address,

Jan 11.-tf. S. M'KENNA,  
 Box 705, Cincinnati P. O., Ohio.

**W. G. ATKINSON,**  
**Civil Engineer, Surveyor & Draftsman.**  
**CUMBERLAND, MD.**

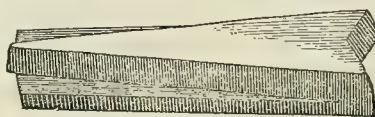
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**REFERENCES.**  
 Richard Norris & Son, Locomotive Builders, Philad'a, Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. " Charles H. Fisher, Esq., Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C. Pinckney Huger, Esq., Pres't N. E. R. R. Co. " Oct. 13.-tf.

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Gauges**

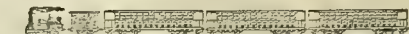
of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,  
 15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**Cincinnati, Hamilton, and Dayton**  
**RAILROAD.**



**SUMMER ARRANGEMENT.**

COMMENCING MONDAY, MAY 7th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**  
 Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**SECOND TRAIN.**  
 Indianapolis Express, at 6.05 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**THIRD TRAIN.**  
 Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**  
 Hamilton Accommodation at 12 M., for Hamilton and all way stations.

**FIFTH TRAIN.**  
 Indianapolis and Dayton Accommodation at 2.15 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**  
 Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

**SEVENTH TRAIN.**  
 Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.  
 Passengers by the 6 A. M. Lightning Express Train, go directly through to Cleveland without changing cars. Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot. HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the Office.

**WINTER ARRANGEMENT.**  
**SAFETY.—SPEED.—COMFORT.**

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena and**  
**Rock Island,**

**BY THE WAY OF THE**  
**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in.....15 HOURS.  
 TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

**THROUGH BY DAYLIGHT TO TERRE HAUTE,**  
**LAFAYETTE, PERU, &c.**

Trains leave the Depot of the Cincinnati, Hamilton and Dayton Railroad as follows, viz:

First Train.—Lightning Express at 6 A. M.  
 Second Train.—Accommodation, at 2.15 P. M., connecting at Richmond with train for Hagerstown, New-castle, &c., &c;  
 Third Train.—Accommodation, at 5.20 P. M., for Richmond and intermediate points.  
 Returning, reach Cincinnati at 10 A. M. and 12 M. and 6 P. M.

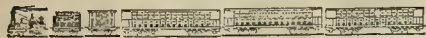
Fare to Indianapolis.....\$3 50  
 " Lafayette.....5 50  
 " Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot. JOHN W. SHIPLEY, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
 feb. 8-ly D. M. MORROW, Superintendent.



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
**Through Tickets from all Parts of the West,**  
**ARE NOW SOLD IN**

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

**AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED**

**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILA-**  
**DELPHIA, NEW YORK, AND**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

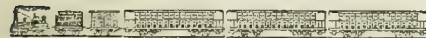
**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 8† Baltimore.

**The Shortest. Quickest and Best  
ROUTE TO LOUISVILLE.**

MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.

**OHIO & MISSISSIPPI RAILROAD,**  
ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER notice, the Passenger Trains will run as follows:

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.****For Indianapolis.**

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.****For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations. Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M. 2.30 P. M., 4.05 P. M., and 9.30 P. M.

Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth Street, north side, four doors from Vine Street, opposite new Custom-house.

S. S. POST,  
Chf. Eng'r and Supt.  
Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.

W. S. BABCOCK, Agent,  
Sept. 5. St. Louis and Cincinnati Omnibus Line.

**1855. Winter Arrangement, 1855.  
COMMENCING MONDAY, JAN. 29.**

**LITTLE MIAMI AND COLUMBUS, AND XENIA RAILROAD.**—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

**FROM CINCINNATI TO**

To New York in .....	32½ hours
To Philadelphia in .....	31½ "
To Washington in .....	29 "
To Baltimore in .....	28 "
To Buffalo in .....	16½ "
To Dunkirk in .....	15 "
To Cleveland in .....	9½ "
To Sandusky in .....	8½ "
To Pittsburgh in .....	14 "
To Wheeling, in .....	10½ "

**FOUR DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

**SECOND TRAIN.**—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Chillicothe; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

**THIRD TRAIN.**—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Morrow.

**FOURTH TRAIN.**—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**FARE AND THROUGH TICKETS.**

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front-street, directly opposite the Spencer House, Railroad Hotel and Mail-boat Landing, or at the Eastern (Little Miami) Depot, East Front street.

WM. H. CLEMENT, Superintendent.  
P. W. STRADER, General Agent

**OMNIBUS LINE.**

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

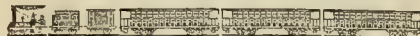
On and after Monday, September 19, 1853, two trains per day, (Sunday excepted), each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 3.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-11

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays expected, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.  
Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

**OPEN** to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fairmouth, Cullenville, Boyd's, Berry's, Robinson's, Gannett's, Cynthiana, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthiana.....	2 00

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington. J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices. oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

VIA LAWRENCEBURG.

**IN** connection with the **Ohio and Mississippi Railroad.** Passenger Trains leave Cincinnati at 7.15 A. M., and 3.15 P. M. Arrive at Indianapolis at 11.30 A. M., and 8.30 P. M.

By Morning Train, passengers arrive at Chicago in 14 hours, and at St. Louis in 28 hours.

Freight shipped to Indianapolis and all other points West and North without delay, at cheapest rates.

Cars run from Lawrenceburg to Terre Haute, Lafayette, Peru and Chicago, without unloading.

Office, foot of Main Street, corner of Water Street.  
SIDNEY RICE, Agent.

Cincinnati, Sept. 28, 1854.

**General Map Establishment,  
No. 3 College Hall, Walnut St., Cincinnati****E. MENDENHALL,**  
**MAP, BOOK & PRINT SELLER,**

Has constantly on hand  
GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers,  
Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES,  
DRAWING INSTRUMENTS, &c.

Publisher of the  
Railway Map of the Western States,  
In Sheet or in Pocket Case;

The LARGE SECTIONAL and RAILWAY MAP OF OHIO, the LARGE MAPS OF CINCINNATI, and HAMILTON CO. Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.

**MAPS OF EVERY DESCRIPTION.**

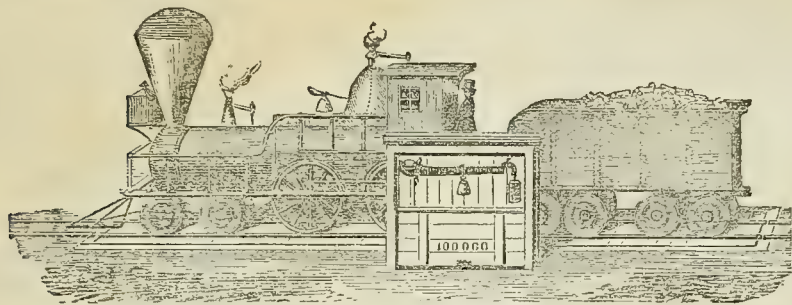


ISAAC RIGDON.

EDWARD C. RYLAND.

WM. HUDDART.

## OHIO SCALE WORKS.



Rigdon, Ryland &amp; Co.,

Nos. 4 & 6 West Second street, between Main and Walnut sts.,  
CINCINNATI.

WE are now prepared to furnish Railroad Track and Depot Scales of all sizes, which we warrant in every respect equal to any manufactured in the United States.  
Being practical workmen ourselves, we feel confident that we can furnish the West and South with as good an article and cheaper than can be bought East.  
Cincinnati, June 29, 1854.

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.  
They will contract for

Locomotives, Passenger, Baggage, Freight,  
Gravel and Hand Cars,

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
J. S. H. OLMS TED, TENNY & PECK,  
je.8-1f Louisville, Ky.

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

LOCOMOTIVES OF SUPERIOR QUALITY.

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
RICHARD NORRIS & SON.  
je.27

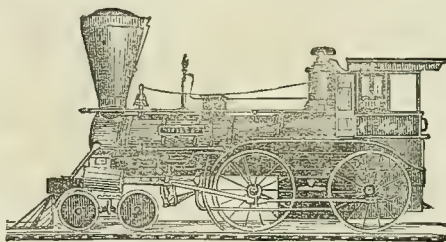
## NUGENT'S COLLEGE

OF  
ENGINEERS & MECHANICS,  
PUBLIC SQUARE, CLEVELAND, OHIO.

C. NUGENT, C. E., Principal.

The design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
au.10

## LOCOMOTIVE WORKS.



NILES &amp; CO.,

CONGRESS STREET, CINCINNATI,

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855 6m.

## Lightner's Patent Axle Boxes for Railroad Cars

The attention of Railroad Managers and others is called to this valuable improvement in

## AXLE BOXES.

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs over TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEK BURNE,

PRINCIPAL AGENT,

May 1846\* Office, No. 64 Courtland st., New York.

## PROSSER'S PATENT

## Lap-Welded Iron Boiler Tubes.

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Awning Frames, Leaders, etc.

Brass Boiler Tubes.  
Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Tyres, Platers' Rollers etc.

P. S.—All Tools necessary for the construction or keeping in order Tubular Boilers.

THOS. PROSSER &amp; SON,

28 Platt Street, New York.

## Cincinnati Locomotive Works!



The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20

MOORE &amp; RICHARDSON.

## WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers,  
Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. & E. Wason, Springfield,  
+cc20 Massachusetts.

## Railroad Car Findings.

BRIDGES &amp; BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fitted  
Wrought Nuts, Bolts, & Washers,Engine and Car Screw Bolts, all sizes; Coach Lag and  
Telegraph Screws,

## LOCOMOTIVE ENGINE LANTERNS,

From the best Manufacturers, and at their prices. Car,  
Hand, and Signal Lanterns.

## Cotton Duck for Car Covering,

Of any required width to 124 inches.

ENAMELLED HEAD LININGS  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Gine Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

## Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron. Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers,  
Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.  
+cc6

## CAR MANUFACTORY,

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops. are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

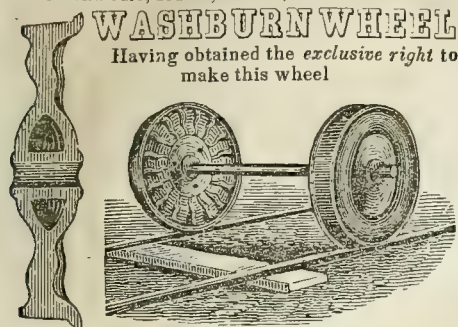
They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan.25-†



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL.

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

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**DAVENPORT, RUSSELL & CO.,**

## Railway Car Manufacturers MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

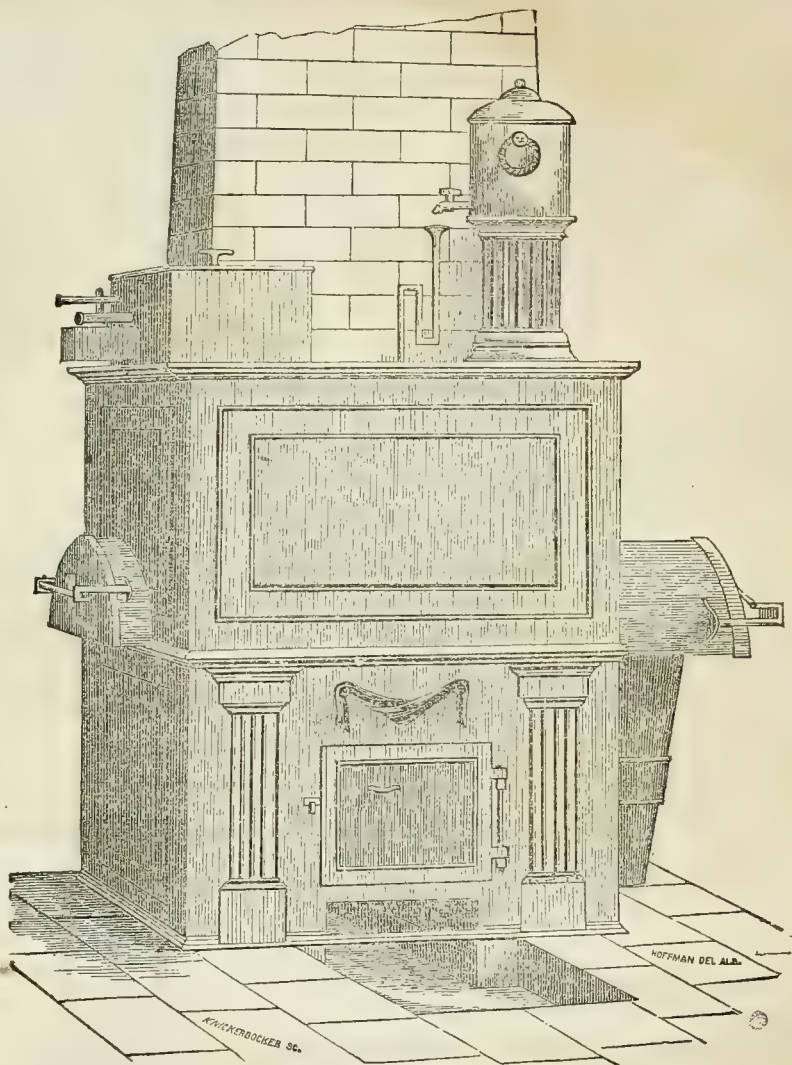
We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16<sup>th</sup> **JOSEPH DAVENPORT.**

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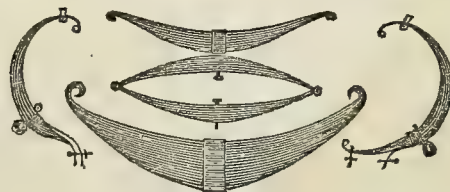
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Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

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**U. WELLS,** R. R. Car Manuf. Petersburg, Va.

**I. R. TRIMBLE,** Supt. Philad. R.R. Co.

May 19.

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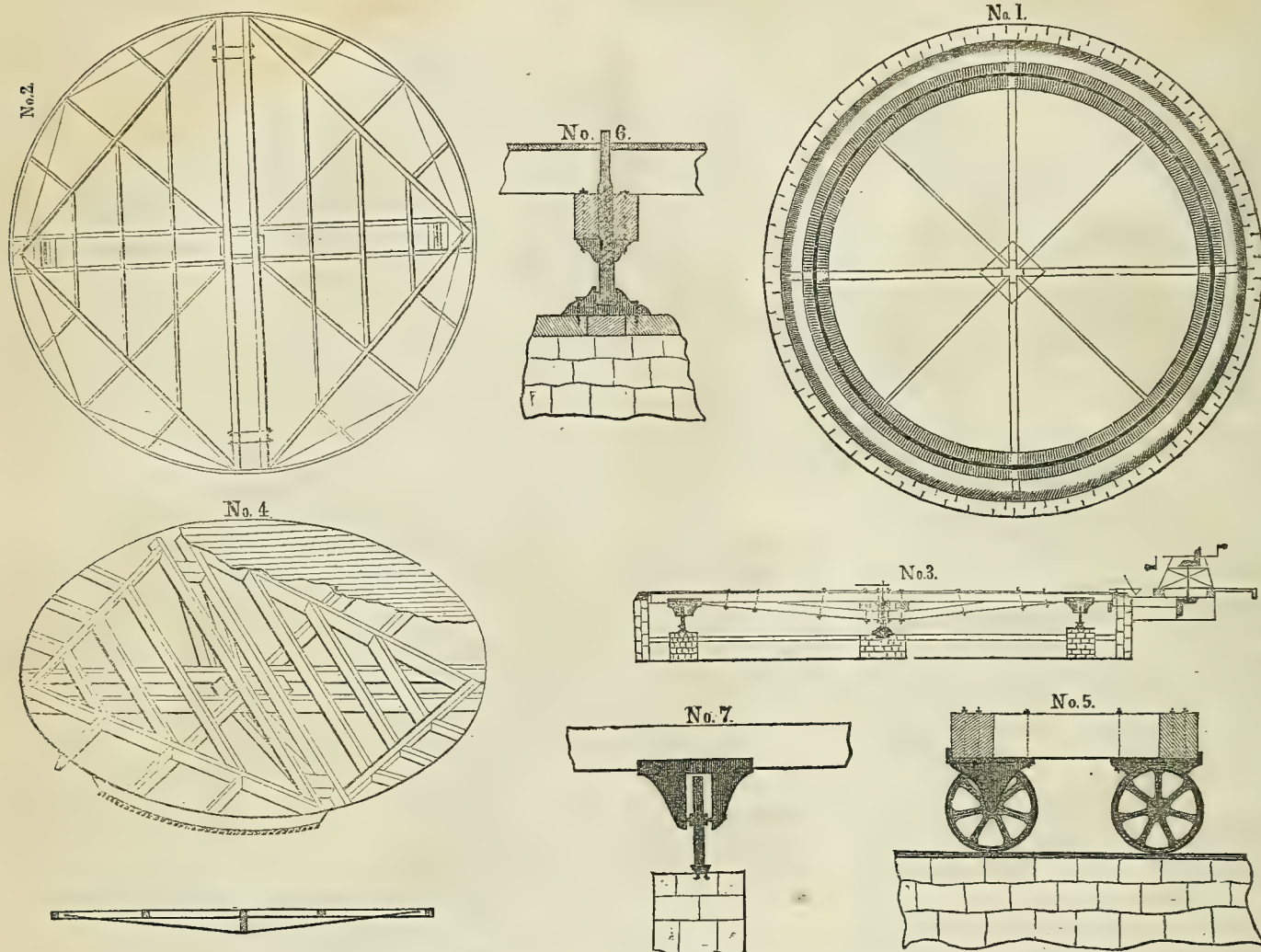
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The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Sup't, Marion, O.  
Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, North Carolina.  
Central North Carolina Railroad.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.  
Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of *Bank and Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the store track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

D. M. CARHART, Cleveland, Ohio.

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CINCINNATI, O.

THE GIBSON HOUSE, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.

A. WETHERBEE, Proprietor.

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# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING, JUNE 7, 1855.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

EUROPEAN AGENTS FOR THE RAILROAD RECORD.—Our European agents are Messrs. Algar & Street, of the London Provincial and Colonial Newspaper Advertisement Office.

No. 11 Clements Lane,  
London, England.

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## TO OUR FRIENDS.

We would announce to our railroad friends that we are again prepared to execute with neatness and dispatch, all varieties of RAILROAD PRINTING, blanks, reports, way bills, time tables, blank books with or without PRINTED HEADINGS, and everything in the printing or stationery line that may be required to stock the various departments of a railroad office. Having been compelled by the fire to refit our office, we have purchased a complete assortment of type with especial reference to railroad jobbing. Our type and materials are all *new* and *copperfaced*, our presses are of the best kinds to secure both neatness and rapidity in execution, and our workmen are experienced. We would therefore call the attention of our friends to our *new* establishment in the old building, 167 Walnut street, and trust they will take this method of expressing to us the appreciation they have of our journal, and the sympathy they feel under our loss.

Orders sent by mail will receive the same prompt attention as if personal application were made.

Our thanks are due to Hon. S. P. CHASE, for valuable public documents, also to Mr. C. MASON, for Patent Office Reports. These gentlemen have our warmest thanks.

VOL. III.—No. 15.

## THE COAL FIELDS AND PRODUCTS OF THE OHIO VALLEY.

The coal trade is likely to increase so rapidly, and become so large an element of railway traffic, that it is worth while to look into the sources of supply and demand. The first thing that strikes us is the remarkable and most important fact, that the Ohio Valley contains (proportionally), the largest coal field in the world. A second fact, scarcely less remarkable is, that including the natural water courses, and the existent and probable artificial lines of commerce, it has the largest means of intercommunication. A third striking fact is, that in the abundance of food and the great quantity and variety of minerals, it has the greatest inducements for the consumption of coal, in manufacturing.

In this article we shall consider the first branch of this subject, the coal fields and products of the Ohio Valley.

1. What is the Ohio Valley? The Ohio Valley comprehends all that space of country penetrated and watered by the Ohio River and its tributaries. It comprehends Western Pennsylvania, Western Virginia, all of Ohio, Indiana, and Illinois, up to the narrow rim of the Lakes, and the States of Kentucky and Tennessee. It comprehends a surface of about 230,000 square miles; and on that surface the coal basins, or in other words, the surface which is underlaid with coal is, according to the best authorities, as follows:

	Surface.	Coal Surface.
Western Pennsylv.....	20,000 sq. miles	10,000 sq. miles.
Western Virginia.....	25,000 "	18,000 "
Ohio.....	35,000 "	10,000 "
Indiana.....	33,000 "	7,500 "
Illinois.....	40,000 "	35,000 "
Kentucky.....	40,000 "	13,500 "
Tennessee.....	40,000 "	5,000 "
Aggregate.....	233,000 "	99,000 "

The above surfaces are not those of the States named; but of that part in the Valley of the Ohio. We see then, the extraordinary fact, that more than *one-third* the Valley of the Ohio is underlaid with coal!

That we may see clearly the immense advantage enjoyed by the Valley of the Ohio, in this particular, we subjoin a table of proportionable coal surfaces, in the most civilized nations:

	Whole Surface.	Coal Surface.
	Sq. Miles.	Sq. Miles. Per ct.
Great Britain.....	120,304	12,000.....10
France.....	213,838	2,000.....1
Belgium.....	10,000	500.....5
U. States.....	3,300,000	200,000.....6
Ohio Valley.....	233,000	99,000.....42

Here, then, we find that one-half the coal surface of the U. States is in the Ohio Valley; and that it is six times greater than all the coal fields of Great Britain, France, and Belgium! To illustrate this still further, we give a table of distances from the principal towns in the Ohio Valley, to the nearest workable bed of coal:

	From Coal Bed.
Pittsburg, Penn.....	0 miles.
Steubenville, Ohio.....	0 "
Wheeling, Va.....	0 "
Zanesville, Ohio.....	0 "
Marietta, ".....	20 "
Chillicothe, ".....	30 "
Columbus, ".....	40 "
Dayton, ".....	110 "
Cincinnati, ".....	110 "
Covington, Ky.....	110 "
Newport, ".....	110 "
Lexington, ".....	50 "
Louisville, ".....	120 "
New Albany, Ind.....	120 "
Indianapolis, ".....	55 "
Terre Haute, ".....	10 "
La Fayette, ".....	60 "
Vincennes, ".....	40 "
Springfield, Ill.....	50 "
St. Louis, Mo.....	10 "
Knoxville, Tenn.....	10 "
Nashville, ".....	30 "

It will be noted, in the above table, that no place in the Valley of the Ohio is more than from 100 to 120 miles from coal banks. If sinking shafts were resorted to and underground mining, as in England, it is possible no place is more than 50 miles. But 100 miles carriage is no objection to the consumption of coal. On the contrary, it can be carried for five cents per bushel, and then be cheap enough for all useful purposes.

Let us now look at what the production of coal is, in the Ohio Valley, and what it will be. The present production of coal in the Ohio Valley is, after careful investigation, supposed to be as follows:

Consumption of Pittsburgh for all purposes.....	22,300,000 bushels.
Exported from Pittsburgh.....	14,400,000 "
Consumption of Wheeling.....	2,000,000 "
Product of Pomeroy and Vicinity.....	7,000,000 "
Received at Cleveland from Ohio Mines.....	3,000,000 "
Product of Nelsonville.....	1,200,000 "
Product of other places in Ohio.....	3,000,000 "
Product of Kentucky.....	2,000,000 "
" of Indiana.....	1,500,000 "
" of Illinois.....	1,000,000 "
" of Tennessee.....	1,000,000 "
Aggregate.....	58,400,000 "

In round numbers, we produce *sixty millions* of bushels of bituminous coal, in the Valley of the Ohio. But, what is that in comparison with the consumption in other countries, and compared with what will be? Let us look at the consumption and population of other countries, and compare it with our own.

	Population.	Consumption.	Ratio.
Great Britain.....	27,000,000	925,000,000 bush.	34 to 1
France.....	36,000,000	105,000,000 "	3 to 1
Belgium.....	5,000,000	125,000,000 "	.25 to 1
Prussia.....	32,000,000	3,500,000 "	.1% to 1
U. States.....	24,000,000	230,000,000 "	.9% to 1
Ohio Valley.....	6,000,000	60,000,000 "	.10 to 1

This shows that the consumption of coal in the Ohio Valley now, is not more than one-third in *proportion* to that of France, England or Belgium; although the coal banks there are not one-sixth part, in proportion, what they are here.

This is owing to the cheapness of wood, and the want of capital to develop the mines. But these obstacles are rapidly passing away.



Wood is becoming dear in the commercial towns, and capital is fast learning that mining is a profitable business. It is quite obvious, that the time is not far off, in which the *proportion* of coal consumed will be quite as high in the States of the Ohio Valley, as in Belgium. Beside this, it must increase likewise with the increase of population. Combining these, so as to advance the *ratio*, in the proportion of the increased population for the next thirty years, and we have the increase of coal consumed as follows, viz :

	Population.	Ratio.	Con. of coal.
In 1850.....	5,000,000.....	10.....	60,000,000
In 1860.....	8,000,000.....	13.....	104,000,000
In 1870.....	10,600,000.....	17.....	180,000,000
In 1880.....	14,200,000.....	23.....	326,000,000

This will probably be much below the results ; for the rapid increase of manufacture, consequent on the opening of the Central Western Mines of Coal, Iron, Copper, Zinc, and Lead, will increase population at a more rapid rate, than is above stated ; and the same cause will also increase more rapidly the *ratio* of consumption to population.

In fine, when we regard coal as the great motive power of all machinery ; as the principal fuel for domestic purposes, and then look at the vast inexhaustible amounts which are piled up in all the hills, mountains, and vales of the Central West, we must regard it as the great element in its future growth, and as securing in the language of Johnson—"wealth beyond the dreams of avarice."

CINCINNATI, HAMILTON AND DAYTON R. R. COMPANY.

Our article on this Company has drawn from its worthy President a statement of some of the causes, which have increased the cost of the work. We return to the subject mainly to give those reasons, and to re-state the most important *facts* in a more distinct manner. If the company is not pleased with these facts, they should recollect they are derived only from *their own official Reports*. We have no outside statements, and have made no guesses. It is said, however, that we have made "mis-statements." What are they ? A single error only is stated, and that we corrected in the next number of the Record. An error in stating the original *estimate*, is of some consequence to the Engineer, but none whatever to the Company, whose acts *since the road commenced running* only are called in question. To make the whole palpable, we will re-state some of the facts furnished by the Company.

1. COST OF ROAD.

The road commenced its running account on the 1st of October, 1852, on which, and six months thereafter (1st April, 1852), and three years after that (1st April, 1855), returned the *cost* of the road as follows :

1st April, 1852.....	\$2,145,595
1st April, 1855.....	3,614,604
Increase (70 per cent.).....	\$1,469,009

2. REVENUE ACCOUNT.  
The following is the return of the receipts and expenses of the Company, from Oct. 1st, 1851 to April 1st, 1855 :

	Gross Receipts.	Expenses.	Net Rec'ts.
Six months from Oct. 1,			
to April 1, 1852.....	\$ 97,214....	\$ 35,181....	\$ 62,033
April 1, 1853.....	321,793....	120,836....	200,957
April 1, 1854.....	448,542....	132,855....	265,787
April 1, 1855.....	483,620....	234,717....	248,903
Total.....	\$1,051,169....	\$573,589....	\$777,670

It appears, then, that the *net* profits of the company in 3½ years running, have been \$777,670. This gives an *annual average* of \$222,000; and that is only \$26,000 less than the actual profits of last year. The average cost of the work has been \$2,800,000, and the net earnings are, therefore, about 8 per cent.; but, it will be observed, that the actual earnings of the last year were only 7 per cent.

3. DISTRIBUTION OF THE RECEIPTS.  
The accounts of the Company show that they have credited themselves with the following items from the *net receipts*, viz :

Interest on Bonds.....	\$186,539
Taxes.....	36,296
Loss on Steamboats.....	16,308
Dividend.....	438,785
Reserved Funds.....	197,967
	\$875,895

This is about \$100,000 more than the company received. The last dividend was declared in *scrip*, which, however, is a debt against the *income*.

RESERVED FUND.

This is such a financial curiosity, that we must restate the figures. Exclusive of the amount credited to other items, there is only \$73,000 ; but it is reported \$171,000. The *floating debt* is as follows :

Accounts due.....	\$624,277
Cash and assets.....	246,524

Debt beyond assets.....\$377,753

This "reserved fund," has, therefore no existence, except in imagination. We have recapitulated this account at some trouble, that the precise progress and position of the financial affairs of this company may be known, and let us add, we have taken not one iota from anything which will present the case fairly. Let us add again, that we have not the least idea that the managers of the company have not transacted its business in the most upright manner, and as they believe, for the best interest of the company ; and for aught we know, they have. On the contrary precisely because it is a company of high character, is the reason why an analytical review of its affairs is valuable. It will show how railways in the alluvial soils of the West, come to cost more than any one at first supposed possible.

We must now refer to the *causes* of this cost, as explained by Mr. L'Hommedieu, the President. We should be glad to quote his remarks at length, but our space does not permit. In a report to the Stockholders, he gives the causes as follows :

1. That the Great Miami River was subject to *greater freshets* than formerly.
2. Bridges must be built with *more water way* in consequence of "heavy embankments."
3. Bridging was prepared for a *second track*.
4. *Low grades*.
5. *Shrinkage* and waste of embankments, in consequence of being speedily built.
6. *Double track work*, including a double track bridge over the Miami, and three miles adjacent to Hamilton, for the Eaton road.
7. Heavy equipment.
8. Real estate, valued at \$500,000.
9. Fencing.
10. Right of way in the city.

These are the *causes* assigned for an increase of \$1,500,000 in the capital of the Company between April 1, 1852 and April 1, 1855. One thing, to make the comparison fair, we must note. The double track item made no difference in the *increase* we have stated. On the 1st April, 1852, (see second Report, page 21,) the *double track* is credited with \$214,000. The addition since is hardly greater, so that the subtraction must be made from both, and the *increase of cost* remains the same. So also, \$100,000 right of way, &c., was credited 1st of April, 1852. So also, \$100,000 for Depot improvements. This made in all over \$400,000, a large item in the list given above. But, we are not disposed to criticise these items, and would ask two or three questions which go to the *gist* of the matter. Could not the *height* of the Miami River—the *grade* required—the *bridges* to cross—the need of a *double track*, &c., be as well known in 1851 as in 1855 ? Whose business was it to ascertain these things ? The Company, or the public ? Will any man presume to tell us that the height of a flood on the Ohio and the Mississippi is not known ? That the breadth of a bridge and the shrinkage of an embankment cannot be known within reasonable limits ?

In conclusion, we would observe, the analysis we have made in reference to this work, we intend making as to several others, and with the same view, to ascertain as nearly as possible the actual cost and actual value of our railroads. The President of the Company has come to precisely the same conclusion that we did, that it is "necessary to use strict economy to make *fair dividends*." Nor does he think higher of the prospects and usefulness of the road than we do. Complete the *Dayton and Michigan Road*, and this one will pay 8 per cent. dividends on *five millions*, and that will make the double track.

NORTH MISSOURI RAILROAD.—On May 23, a select party of invited guests rode out on this road as far as the rails are laid from St. Louis, five miles. It is intended to have the road complete as far as St. Charles, by July 4th.



### COPPER MINES OF TENNESSEE—NEW DEVELOPMENTS.

One of the most remarkable things in the development of the Mineral Regions of the United States, is that of the Copper Mines of Tennessee. Those now opened lie on the Southern border of the State; but, there are, no doubt, many other localities of this metal, in East Tennessee; in Ohio and North-Western Georgia.

In the last annual report of the Central Georgia Railroad, we find that 9,558,958 lbs. of Copper Ore were carried over that road to Savannah. This whole amount was shipped to other ports to be smelted. Since the date of that report, (December 1,) the shipments have continued to increase. From the 1st of January to the 15th of May, 8,000 boxes of Copper ore were shipped from Savannah.—At the last date there were several vessels at Savannah to ship it to Liverpool. Thus Savannah, where only Cotton and Lumber were articles of export, now finds Copper becoming a leading article!

A smelting establishment should be erected near the mine. Chattanooga, Columbus, and Atlanta, have been talked of as the locality.

### MARRIED WOMEN'S PROPERTY IN OHIO.

In 1846, the Legislature of Ohio passed an act giving the sole and separate use of the wife's property, acquired either by inheritance, devise, or her own labor, to the wife; and declaring that the husband's life estate in it should not be touched.

Recently a case occurred in the Superior Court, in which the property of Clark was attached, by his creditor, in the hands of Gregory. The wife of Clark appeared, and claimed the property as hers; because it was raised by mortgage on her property, and placed in her husband's hands, as her agent. These facts were proved, and JUDGE STORER, before whom the case was tried, decided that the wife, under the act of 1846, had the exclusive right to her own property, and that she had a right to employ her husband, as *her agent*, without losing the right to the property. The wife, therefore, had judgment in her favor.

This act of 1846, is a most important change in the law; and one, which goes far to secure wives against the loss of their property, by the vices or imprudence of their husbands.

### RAILROAD MANAGEMENT.

We take the following excellent suggestions from Herapeth's Railway Times. It will commend itself to the attention of every reader:

TAKE CARE OF THE CAPITAL ACCOUNT AND THE REVENUE WILL TAKE CARE OF ITSELF.—It is a remarkable fact that those lines in England which pay remunerative dividends are those whose capital cost is light.—From the same cause and no other, are the French railways excellent properties.

Nothing is more easy of explanation than this circumstance. The business of railways is always highly profitable, but it is seldom the capital expenditure is otherwise than extravagant. Thus it is that those railway companies which realize the largest amount of profit disburse the lowest rate of dividend.

Let a line have the moderate extent of traffic represented by £40 per mile per week, or (about) £2000 per mile per annum. The expenses being 50 per cent.—more than which they are not generally—here is a profit of £1,000 per mile per annum applicable to the payment of interest or dividend (or, which is usual, to both interest and dividend) on whatever capital has been expended. If the capital expended has been £10,000 per mile, the dividend will be 10 per cent. per annum. Supposing no part of the £10,000 capital was raised on loan, but it is generally the case that at least one-third of the whole capital is borrowed, £3,000 of the £10,000 per mile being borrowed at the fixed rate of interest of 5 per cent.; there would be £150 of the £1,000 per mile per annum profit for interest on loans, and £850 applicable to the payment of dividend on £7,000 per mile raised by ordinary share capital. This would afford a dividend at the rate of about 12 per cent. per annum. But if the capital expended be £30,000 per mile, one-third borrowed at 5 per cent., the same rate of revenue profit will afford a dividend of only 2½ per cent. per annum in place of 12.

It is a great misfortune in railway affairs that the men who generally control and direct the expenditure in the construction of railways are professionally prejudiced in favor of an extravagant course. Who selects the line, and thereby determines the material part of the capital cost? The engineer. What interest has the engineer in selecting that line which will encounter the least extent of tunneling, bridging, cutting, embankment, and other heavy works which run away with the money by millions, or make or mar the undertaking in a commercial sense? In nine cases out of ten none whatever. His object is to construct the finest work of art, the greatest wonder of the age. To form the longest and most difficult tunnel is to create a world-wide fame for the engineer, though it be the ruin of the unfortunate shareholders. A Thames tunnel or a Menai bridge will make a great engineer, but destroy the prospects of remuneration to the shareholders.

The genius of the engineer should be directed to following the course of the shareholders' interest, which could be readily accomplished by compelling him to invest a considerable portion of his salary in the shares of the company as a permanent investment. If this had been done in the first instance, we would have more lines made for £6,000 per mile than £50,000. Another plan would be to give the engineer a larger per centage on all savings on capital cost. This plan has been most advantageously adopted by a foreign railway company, who by this means are now constructing lines at £4,000 per mile, while a similar line—a part of the same—cost in former times £11,000 per mile, under a system not considered extravagant.

We wish to impress on shareholders the importance of economising capital, since it is the extravagant expenditure of it which is most detrimental to their interests. It is a curious fact, that the shareholders generally busy themselves with matters of trifling importance—such as the amount of salary given

to a secretary, or even the sum weekly spent in pens, ink, and paper—and neglect the all-important subject of capital expenditure. They will readily vote away a million for fanciful 'improvements' or useless alterations, which inflict a permanent charge of £50,000 a year, while they will spend hours in discussing the propriety of spending one or two hundred a year, subject at any time to alteration. In those few cases where the principal attention of the parties has been directed to saving capital, such as the Dresdie railway, the Blyth and Tyne, the Lancaster and Carlisle, the Hull and Holderness, &c., the dividends are good, although the traffic is not large. Economise capital expenditure if you would obtain good dividends. The revenue account is of minor importance. If you well attend to the capital account, you may leave the revenue to take care of itself. The expenses are sure not to exceed a certain per centage of the receipts, and the scale of current expenditure may be at any time revised, while capital, when once spent, can never be recovered—its interest charge is permanent.

## Railroads.

### COOSA AND TENNESSEE RIVER RAILROAD.

We find in the *Selma Reporter*, an account of the ceremony of breaking ground on the Coosa and Tennessee River Railroad. The ceremony took place in a grove near Gadsden, Cherokee county, and was graced with a full share of speeches and festivities common to occasions of importance.

Eight miles of the road have been placed under contract, these are the first eight miles next to Gadsden. The contractors are Mr. Reece, Mr. Thos. Hollinsworth and Mr. Thos. C. A. Cox. With reference to the road the *Reporter* says:

"This road; which is to extend from the Coosa, at Gadsden, to the Tennessee, at Guntersville, and is the continuation of the *Alabama and Tennessee road* to the river, has had appropriated to it out of the two and three per cent funds, near about \$300,000 upon certain terms and conditions (intended to secure the faithful application of the fund) which the company now think they will be able to comply with in a reasonable time. We hope so indeed! The commencement of the work has been long delayed on account of the scarcity of local capital for so heavy a piece of work, and also on account of the uncertainty as to the time of our being able to reach Gadsden. Some new surveys have improved and shortened the line heretofore obtained, and the company (tired of waiting any longer) have, we think, wisely determined to commence their work.

"The new line of location, as we understand, is only about thirty-eight miles, near half of this however, being across the mountain, is heavy work. If it were in Georgia, South Carolina, Tennessee or Virginia, and so important as this mountain section is to both North and South Alabama, it had been



undertaken mainly by the State, or at least its construction been secured by a sufficient offer of State aid to have brought out private capital freely.

"Its construction years ago would have been worth a vast sum to the State in connection with our road to Gadsden, and the long line that Tennessee and Kentucky want to bring to it from the North, so soon as they see it secured. A million or two a year it would certainly be worth to Alabama, without stopping to enquire what dividends the stock would pay. The Georgia State road would have been a splendid investment for her whether it ever paid into the treasury direct from its earnings on transportation one single dollar, as is well known to the well informed, and can be demonstrated to the satisfaction of all who are capable of reason."

#### THE MEMPHIS AND CHARLESTON R. R.

We have before us the Fifth Annual Report of the President and Directors of this Road. It is long and interesting, embracing the whole subject of the position, operations, and prospects of one of the most considerable works of internal improvement that has been undertaken in our country. It has always been felt that Charleston had a leading interest in the opening of this route, and this justified, in the opinions of our people, a large subscription to it on the part of our city. On the other hand, the Tennesseans seem, in the very naming of their Road, to have regarded the opening of a communication with Charleston as the great feature in their enterprise. At any rate, we are soon to learn whether a Railroad connection between Memphis and Charleston will be beneficial; for, under the energetic and sagacious administration of Mr. Tate, the President, the Road will be finished in eighteen months from this time, and, in our opinion, it will be one of the most substantial and successful Railroads in the United States.

The main trunk of the Memphis and Charleston Railroad, commencing at Memphis, on the Mississippi River, and terminating at Stephenson, on the Nashville and Chattanooga Railroad, is in length 272½ miles. It has two small branches of the aggregate length of 15 miles.

Part of the line, 49 miles, from Memphis to La Grange, has been in operation for some years, and though with no support except from its local custom, has, during the past year, made a net profit on the cost of its construction and equipment of 13½ per cent.

Another part of the line, the Railroad from Decatur to Tusculumbia, 43 miles in length, has also been some years in operation, and was originally constructed to obviate the difficulty of the Muscle Shoals in the Tennessee River. Owing to the excessive drought, which has destroyed the navigation of the Tennessee for no small portion of the past year, the business of this road has been very much impaired, but it still shows a considerable increase on that of the year before.

Between these two finished roads, are the broad gaps to be filled up, which connect Memphis on the one hand, and Charleston on the other, with the Valley of the Tennessee. The following passage of Mr. Tate's Report shows the state of the work on these two divisions:

"EASTERN DIVISION.—The grading and masonry is now ready to lay track from Stephenson, the intersection of your road with the Nashville and Chattanooga Railroad, to Decatur in Alabama, 83 2-10 miles. Some little work remains to be done on bridges and stone excavations, but at points so remote from either end of the track as to be out of the way, and the track-laying will not be delayed on that account. The cross-ties are all upon the ground. The iron, chairs and spikes are all purchased, and are now arriving rapidly at Stephenson and Tusculumbia, and will all be on the ground as rapidly as needed by the track-layers.

"The track laying is let to able and energetic contractors, who will urge forward the work with a large force, as rapidly as it can be done. The track laying is expected to commence at Stephenson and Decatur to-day with a force at each end sufficient to lay at least twelve miles per month. You may, therefore, reasonably expect the connection to be made between Stephenson and Decatur by November or December next. This will give you a complete line of road from Stephenson to Tusculumbia Landing, 129 miles, penetrating the entire Tennessee Valley, one of the most fertile and densely populated countries in the South-West, abounding in all the elements of wealth and prosperity, connecting it by direct railway communication with the entire Atlantic Seaboard, at every commercial point, from Boston to Charleston and Savannah, giving them an outlet for their rich productions at all seasons of the year, and leaving your road the only reliable means of transportation for that entire section of country.

When this connection is made you may rely, with much confidence, upon the receipts of the road as a certain source of revenue from which you will derive a large portion of the means necessary to complete the remaining link in your road west of Tusculumbia.

"The grading and masonry from Tusculumbia to the Mississippi line has been under contract for some time, and has progressed as rapidly as your means would justify. It will be ready for the track by July or August next, for 18 miles, and within about five miles of the Mississippi line.

"WESTERN DIVISION.—The first thirty miles of your road east of La Grange, has been under contract for grading and masonry for more than a year. The exceedingly broken nature of the country on this section makes it the most costly portion of your line, and consequently has taken longer time to prepare it for the rails. Twenty-five miles of it from La Grange to near Big Hatchie River are now fully ready, with cross ties and all other timbers necessary for the superstructure. The iron, chairs and spikes have all been purchased, and most of them have arrived. The contract for laying the track has been let to one of the most experienced track-layers in the country, and he is now laying it down rapidly, and will complete this section of the road by July or August next, which will give you seventy-five miles of main road from Memphis east; and the Somerville branch, thirteen miles—in all eighty-eight miles of road in operation on the Western Division by August next."

This shows an extraordinary, and to us, a most gratifying exhibit of the state of the work, and seems fully to justify the President in his anticipation that the whole route will be ready for business by November, 1855—

five years from the commencement of operations.

Another equally important matter, the entire cost of constructing and equipping the road, is now brought within the limit of exact calculation, and is certainly a very moderate statement compared with the magnitude of the work, and the difficulty of the ground. The following is the statement:

ENTIRE COST OF THE ROAD.	
Eastern Division, 152½ miles, .....	\$2,621,481 46
Western Division, 134¼ " .....	2,318,781 81
Whole length,.....286¾ " .....	\$4,940,263 27
Making the cost of the whole road, including branches, 286¾ miles, when finished and fully equipped, \$4,940,263 27, or \$15,228 per mile, for road construction, and \$17,238 per mile for construction and equipment.	
Deduct from the entire cost the amount paid to the 1st of March, 1855, as per Treasurer's Report:	
Paid on Eastern Division, .....	\$1,431,325 40
Paid on Western Division, .....	1,222,512 21
	\$2,673,867 61
Will leave the balance to be expended to complete and fully equip the road,.....	\$2,266,425 63
Add to this the present liabilities,.....	103,173 20
Prospective interest on State bonds,.....	54,000 00
	\$2,443,598 85
Deduct from this sum the available assets of land.	
Eastern Division,.....	\$ 478,872 01
Western Division,.....	1,201,544 19—1,680,417 20
Leaving the amount to be provided, to finish and equip the road.	\$763,182 66

The foregoing estimates are for the road when finished and fully equipped. The policy adopted by the Board heretofore, has been to put as little of the means of the company into anything else than road bed and iron as possible, as the road when finished can supply the means to equip itself, should the company not be able to raise the money for that purpose without making too great sacrifices.

This result, which makes a well constructed railroad of nearly 300 miles in length, through a broken and difficult country, cost less than five millions of dollars, is certainly a most promising one. And it is no mere guess of engineers. Three-fourths of the whole route are ready for the laying of the track, and the whole wooden and iron superstructure is ready. The remainder has been most carefully surveyed, and is in progress towards completion. We have a right therefore to assume that the figures given represent fairly the cost of this road, and taking this as a basis, we doubt if there is a railroad in the United States that promises a better return for the investment than the one before us; and we feel a sentiment of pride in recalling the remembrance that Charleston has from the first recognised the importance of this work and has opened her hand liberally to aid in its completion.—*Charleston Mercury*.

#### PUBLIC WORKS OF PENNSYLVANIA—SALE OF THE MAIN LINE—AN OUTLINE OF THE BILL.

The Bill for the sale of the Main Line of the Public Works, as it passed both branches of the Legislature, has received the signature of the Governor, and is therefore a law. It is a measure of much importance, and a brief outline of its principal provisions will be read with interest.

1. The first section makes it the duty of the Governor, within ten days after his approval of the Act, to cause to be advertised daily until the day of sale, in one or more newspapers of Philadelphia, Pittsburg, Harrisburg, Boston and New York, a notice that the Main Line of the Public Works will be exposed to sale at the Merchants' Exchange, or



at some other public place in the City of Philadelphia, on a day to be selected by him, not more than ninety days after the passage of the Act.

2. At the time and place so selected, the whole Maine Line, namely, to wit: the Philadelphia and Columbia Railroad, the Canal from Columbia to the Junction, at Duncan's Island, the Juniata Canal from thence to Hollidaysburg, the Allegheny Portage Railroad, including the new road to avoid the Inclined Planes, and the Canal from Johnstown to Pittsburg, with all the property thereunto appertaining, shall be offered for sale.

3. It shall be lawful for any person or persons, Railroad or Canal Company, now incorporated or which may hereafter be incorporated, to become the purchaser of said Main Line, for a sum not less than eight millions of dollars, provided that if, the Pennsylvania Railroad Company become the purchasers, they shall pay a sum of not less than nine millions of dollars, but on the consummation of the arrangement, so much of the Act incorporating the said Company as requires the payment of a tax upon tonnage passing over their road shall become null and void.

4. The purchaser shall within ninety days pay ten per cent. of the purchase money, and the residue thereof in ten equal instalments.

5. Besides the lien on the said Works, provided in the Act, the purchaser shall as a further security, deposit in the State Treasury, State Loans to the amount equal to the cash payment for one-fourth of the whole purchase money.

6. All payments to the Commonwealth by the purchasers for the principal, shall be made in certificates of State Loans at par, and the interest shall be paid in cash annually.

7. The purchasers may at any time before the maturity of the bonds given, pay off and satisfy the principal, on giving due notice.

8. As soon as the bonds and additional security shall be given, the whole Main Line shall be transferred.

9. All Superintendents and other officers of roads and canals, shall continue to discharge their duties until removed or re-appointed, and their official bonds, shall enure to the use of the purchasers. So also of all moneys received by them.

10. The purchase money unpaid, shall be exempt from the payment of State taxes.

11. It shall be lawful for the purchasers to purchase, lease or use, the Harrisburg, Portsmouth, Mount Joy and Lancaster Railroads, or to construct a road from the western terminus of the Philadelphia and Columbia Railroad, to the Allegheny Portage.

12. The purchasers shall at all times maintain a continuous railroad and canal communication between Philadelphia and Pittsburg, and keep the same in good operating condition; and shall also, at all times, keep open and in good order and condition, for public use.

13. It shall be lawful for said purchasers, their successors and assigns, and their officers, engineers, contractors and agents, to enter upon any lands adjoining, or in the neighborhood of the works, and dig, take and carry away therefrom, any materials necessary for enlarging, making, altering, deepening or improving said works, or any portion thereof.

14. The purchasers shall have power and authority to own and employ locomotive engines, cars, boats and horses, and to convey passengers and freight of whatsoever descrip-

tion, within reasonable time after presentation on said works, or any portion thereof, and charge and receive tolls and fare for the passage and transportation of persons and freight, and said purchasers, their successors and assigns, shall have the exclusive right to furnish all the motive power on said railroads: *Provided*, that all persons with cars, horses, boats and freight may pass over said works, they paying toll therefor, and the use of said works shall be governed by such general rules and regulations as such purchasers may from time to time ordain, establish and publish; but no person shall, without the consent of such purchasers, be permitted to use horses, or other animal power, on said railroads, or steam on said canals: *And Provided*, that no discrimination in tolls or charges, or in the priority of passage through the locks, shall ever be made against any boats or tonnage passing to or from the Susquehanna division of the Pennsylvania canal, nor shall any greater amount be charged upon such boats and tonnage than that now paid the Commonwealth.

15. Should any company already incorporated by this Commonwealth become the purchasers, they shall possess, hold and use the same as part of their original act of corporation, and any supplements thereto, so far modified, however, as to embrace all the privileges granted by this act in addition thereto, and all provisions in said original act, and any supplements inconsistent with the privileges herein granted, shall be, and the same are hereby repealed.

16. That all moneys derived from said sale shall be either paid to the sinking fund, and applied to the payment of the State debt, according to the provisions of the act entitled "An Act to provide a sinking fund and to provide for the gradual and certain extinguishment of the debt of the Commonwealth," approved April tenth, one thousand eight hundred and forty-nine, or used in payment of the interest on the loans of the Commonwealth.

17. That should it be ascertained at any time before the payment of the last instalment provided for, that further legislation is required for passing to the purchasers, their successors or assigns, all the title and interest of this Commonwealth to said main line, or any portion thereof, then the faith of the Commonwealth of Pennsylvania is hereby pledged for the enactment of all laws and performance of all acts necessary to carry out the true intent and meaning of this act.

18. That should no sale take place at the time appointed, as provided for in this act, then it shall be the duty of the Governor to invite proposals for the private purchase or lease of said works, and submit the same to the Legislature at its next session.

19. That said purchasers of the main line under the provisions of this act, shall within twelve months after receiving possession of said works, relay the south track of the Philadelphia and Columbia railroad, where the same has not been laid with a heavy rail, and the rates of toll now charged per mile on way freight on the Columbia railroad shall not be increased where the distance exceeds forty miles, and for all distances on the canal exceeding forty miles, the charge for way tolls shall be in proportion to the distance carried.

20. That all necessary expenses incurred by the Governor under the provisions of this act, shall be paid out of any money in the treasury, not otherwise appropriated, upon warrants drawn by him.—*Bicknell's Reporter*.

**JACKSONVILLE AND CARROLLTON RAILROAD.**—The directors of the Jacksonville, Carrollton and Alton Railroad, held a meeting at Jerseyville last Wednesday, with the view of coming to some determination as to the commencement of work upon the road. A majority only of the board was present, but it was determined to ascertain upon what terms the use of the Chicago, Alton and St. Louis Railroad, from Monticello to Alton, could be obtained, with a view to the commencement of the work at that point, and building from thence direct to Jerseyville and Carrollton. It was thought that the present subscriptions of money and county bonds would grade and lay the timber and iron from Monticello to the neighborhood of Carrollton, and that being accomplished, little difficulty would be experienced in obtaining money to build the balance of the road. At this meeting, arrangements were made to ascertain the views of the Chicago, Alton and St. Louis Railroad, on the subject of the proposed use of their track, after which, the Board of Directors of the Jacksonville and Carrollton Railroad, will be called together and take some definite action.—*Alton Courier, May, 24.*

**ONTARIO, SIMCOE AND HURON (CANADA) RAILWAY.**—The following is the traffic return for week ending 19th May 1855, with 94 miles open:

From 2819 passengers,.....	\$2,416 48
From 1525½ tons freight,.....	2,931 34
From other sources,.....	97—5,348 79
For the corresponding week of 1854, with 63 miles open,	
From 2110 passengers,.....	\$1,433 15
From 899 tons freight,.....	1,133 31
From other sources,.....	31 42—2,579 88

Increase in 1855,.....	\$2,750 91
Earnings per mile, per week, in 1855,.....	\$56 90
Earnings per mile, per week, in 1854,.....	41 23
Increased earnings, per miles, per week,.....	\$15 67

**TERRE HAUTE AND RICHMOND RAILROAD.**—We are indebted to the politeness of Mr. Charles Woods, Secretary of the Terre Haute and Richmond Railroad, for a report of the receipts of the road for May, 1855:

From Passengers,.....	\$13,720 91
From Freight,.....	5,760 54
From Mail and Express,.....	1,098 58
Total,.....	\$20,600 03
May, 1854,.....	19,358 12
Increase,.....	\$1,241 91

**PORT OF QUEBEC.**—Return of the number of passengers arrived at the port of Quebec from the 19th to the 25th May, 1855:

From whence,	Cabin,	Steerage,
England,.....	15	450
Ireland,.....	5	727
Scotland,.....	0	13
Lower Ports,.....	0	39
Previously reported,.....	20	1299
	62	1879
	72	3108
To same period 1854,.....	24	3269
Decrease in 1855,.....		161

A. C. BUCHANAN, Chief Agent.  
Emigration Department, }  
Quebec, 25th May, 1855. }

**AUDIT OFFICE.**  
Montreal, May 24, 1855.

**BUSINESS OF THE GRAND TRUNK RAILWAY.**—Return of Traffic for the week ending Saturday, the 12th May, 1855.

No. 3,781 passengers, first class,.....	\$3,921 98½
No. 1,020½ do second class,.....	930 86
No. 4,827½ tons merchandise,.....	12,215 23
No. 715,657 feet lumber,.....	2,740 32
No. 833 cords of firewood,.....	1,062 24
Mails etc.,.....	850 20½
Total,.....	\$21,741 83
Do. Currency,.....	£3,435 7 2
Miles open,.....	292

**COMPARATIVE STATEMENT.**  
1855. Week ending May 12,.....£5,435 7 2  
1854. Week ending May 13,.....4,014 10 3½

Increase,.....£4,014 18 10½  
Total Receipts, for the current year, commencing Jan. 1st, up to week ending May 12, 1855,.....£73,611 3 0  
JAMES HARDMAN, Auditor.



## Miscellaneous and Mechanical.

### THE MECHANICS' INSTITUTE ANNUAL FAIR.

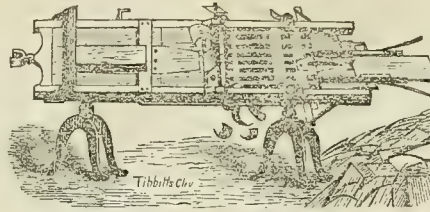
This institution is one of the most useful as well as creditable in the country. The idea of a Mechanics' Institute at Cincinnati, was conceived by a gentleman who owes all his success in life to his talents in mechanism and his success in manufacturing. The Institute occupies a large and imposing building on the corner of Vine and Sixth Streets, and contains a reading room, lecture rooms and library, all of which are of the best kind for the purposes for which they are designed.

The Annual Fairs are designed to encourage native talent, and promote improvement in the arts and manufactures. As such they are exerting a useful influence, and it is to be hoped will be more and more appreciated by the people of our city. The one which has just closed, has been one of considerable interest. Preparations were made on an extensive scale for the accommodation of exhibitors. A new building was erected on a vacant lot adjoining the Institute Building for the purpose of accommodating the machinery department, which required power to drive it, and which was too heavy or noisy to be placed in the main building. The engine put up here was an upright cylinder engine, very compact, the pitman and crank working directly on the main shaft. As this department is probably the most interesting to the majority of our readers, we shall confine our remarks mainly to this.

There were on exhibition twelve varieties of steam engines, among which were rotary, horizontal, upright and oscillating engines, and one in which the valves were moved by exhaust steam. There was, unfortunately, no one there to describe the operation of the valve motion at the time of our visit, but we could plainly hear the click of the valve slide within the steam chest. The rotary engine was not running, and its attendant was not present to describe it. We confess that we never had very great confidence in a rotary engine, either the friction is too great or the valves will leak. The chronometer engine, an oscillator, was working when we went in. In the ordinary oscillator, the valves are in a common shaped steam chest, and are like the slide valve of the horizontal stationary engine. In this, the valves are circular discs, around the trunnion on which the cylinder oscillates, hence this trunnion can be reduced to a minimum size, which cannot be the case where the steam enters through the trunnion. Friction is reduced and an opportunity afforded for giving the valves lead.

**SHINGLE MACHINES.** — Morrison's Shingle Machine on exhibition here, we had seen before. The bed of the machine is placed at an oblique angle, which is more convenient than if

it were put either horizontal or perpendicular. The machine has three knives placed in the same frame, at a uniform distance from each



other. The first rives the shingle from the block; the second shaves the upper side, and the third the under side, while two smaller cutters shave the edges as the shingle leaves the machine. The machine is, therefore, very compact and simple in its operation. It is said that with an engine of about three horse power, it will manufacture from 20 to 30,000 shingles per day from any kind of easily rived timber.

**Ewart's Patent Shingle Mill.** This is a large circular saw, running horizontally, the block from which the shingles are to be sawn is pushed sideways and not endwise on the saw, hence the saw—cut runs lengthwise on the shingle. The shingles sawed by this machine are superior to other sawed shingles and second only to shaved ones.

**McGowan's Double Action Suction and Force Pump.** This consists of an ordinary pump barrel, surrounded with a second cylinder, forming an air chamber around the pump. The valves are simple and not liable to get out of order.

**Lane & Bodley's Power Mortising Machine.** We have before described these machines; and hence, shall only say that it worked well. One of these machines is said to be capable of doing the work of ten men. It mortises hard or soft wood, and at any bevel. Their hub mortiser for mortising the hubs of carriage wheels, is also an excellent machine.

**Chair Seat Planing Machine.** The same parties had also on exhibition an excellent machine for planing the seats of chairs. By the arrangement peculiar to this machine, the tool planes the seat of the chair hollow, ready for the sand paper of the finisher, and quite rapidly.

**The Type Casting Machine.** One of the most curious machines on exhibition, was the Type casting machine exhibited by C. F. O'Driscoll & Co., of this city. The operator had a small trough of melted type metal before him, and by turning a crank the type ready cast were turned out rapidly. The machine is simple and works very satisfactorily.

### ALABAMA COAL.

The steamer *Isabella* has left the Yazoo trade, having been purchased by the Alabama Coal Mining Company, and is now fitting up at Algiers. She is intended for a towboat,

and will be the first of a line of steamers and barges which the company intend to establish as a sure conveyance of their coal to the different markets. The coal from these mines is said to be of an excellent quality and in great abundance. We are indebted to the Alabama and Tennessee River Railroad Co., whose road runs through these coal regions, for this new trade; also to the enterprise of the proprietors (mostly Southerners) composing the Alabama Coal Mining Company. The South is waking up, and we may expect to keep warm next winter cheap. We hope, at least, that this company will be able to regulate the coal trade in our city, so as to avoid in a measure the fluctuations to which it has always been subjected here as well as in Mobile.

These mines are situated near Selma, on the banks of the Alabama River, and are thought to be extremely rich, if not inexhaustible. It is contemplated to bring the coal for this market by the way of Lake Pontchartrain.

We clip the above from the *New Orleans Crescent*. In one respect the *Crescent* is mistaken. These mines are not situated on the banks of the Alabama River, but in the counties North of this place, through which the Alabama and Tennessee River Railroad passes. These counties abound in coal mines, which are inexhaustible; as also, in minerals of different kinds, which, when fully developed, must make this one of the richest of the Southern States.—*Selma Reporter*.

### PARRY'S PATENT ANTI-FRICTION BOX.

Our readers will find in the proper column, an advertisement for this improved Box. As we have not seen it ourselves we subjoin the following notice of it from the *Advocate*:

"This improvement has been in use for about two years. The name, which conveys the literal idea of the quality possessed by the box, gives no intimation of its purpose or construction.

"The object of the box is the reduction of pivot friction, like that of the pivots of draw-bridges, turn-tables, cranes, turbines, truck-frames, and of the steps of upright shafts, and also of the ends of screw propeller shafts.—The construction of the box is simple. It may be described as consisting of one fixed and one movable circular plate or disc, with conical rollers interposed between them.—The end of the revolving pivot is attached to the movable plate, and by its motion the rollers are rolled around the fixed plate. So far, the idea of the box is well known, and has been applied. But there is a tendency of the conical rollers to work out, and if held in their places by a surrounding rim, to create an end friction against it.

"In Parry's box, each roller is a double cone,—it is swelled at one point, and turned off from thence equally tapering in each end. Two blank bevel pinions, joined back to back into one, would give the idea of the shape of the rollers. For the ends of the rollers are not complete cones, but frustra of cones.



"The outer frustrum is, however, quite short, as that in a roller of 4 inches in length, the cone of the inner end may be 3 inches long, and of the other end one inch. The plates between which the rollers lie, are of course dished, or turned out to the shape of the cones, so as to bear alike upon them throughout their length.

"There are nearly as many cones of rollers as can lie, side by side, in the circular troughs turned in the plates.

"In working, the outer conical end of the roller counteracts the tendency of the inner end to work out.

"Parry's box, therefore, retains the conical rollers in place, without (as is proved by practice) creating any sensible end friction on the rollers themselves.

"The principle of the box has been conclusively tested in a 48 feet iron turn-table, lately built for the North Pennsylvania Railroad, by Bancroft & Sellers, of Philadelphia.

"The table itself, made upon a strong and simple plan, weighs about 25,000 lbs., all of 20,000 lbs. of which is suspended on the movable plate of one of Parry's boxes. Yet this weight—ten tons—may be moved by the little finger, applied on the rim of the table. We have tried this test ourself, and must declare our conviction that no expedient can ever reduce friction to a lower limit. It is only the inertia of the table which is now to be overcome. Were ten tons of iron suspended freely by a rope, reaching to an indefinite height, its resistance to motion could not be sensibly less than when suspended upon the box which we have described.

"The box can be applied in many situations—drawbridges, cranes, trucks, turbines, &c. But in the present case—that of Bancroft and Sellers' turn-table—the latter deserves separate mention. It consists of a central square iron hub, with cast arms or girders bolted against two opposite sides of the hub, so as to form supports for the rails. The manner of bolting is original and permanent.

"Near the ends of each pair of arms a cross-girt is bolted across for stiffness, and trucks are attached, so that when the table is balanced they will just clear a circular track beneath. If the load is thrown on one side of the table, these rollers run upon the track.

"This table is warranted to stand 20 years without repairs. It is built at a moderate price.

"In economy of construction, maintenance and operation—the three great economical requisites of every machine—this table is a signal improvement on every thing which has preceded it. It deserves general attention, because it will save, to railroads of the country, many thousands annually in repairs, renewals and cost of attendance."

## NEW TOWNS IN IOWA AND NEBRASKA.

We find in the Council Bluffs Bugle, the following notice of new and growing towns in Iowa and Nebraska:

"SERGEANT BLUFF CITY.—We learn that this place is now assuming an aspect of importance, among the fast growing towns of Western Iowa.

"There are already near a dozen buildings erected, and the materials for building, scattered over the site, is conclusive evidence of its fast growing prospects.

"A steam mill is to be erected so soon as the engine can be transported from St. Louis, and other valuable improvements are contemplated. The country surrounding is extremely fertile and well adapted to a high state of productiveness, and all the elements of wealth, and a great city is centred in that region.—The site is upon the bank of the Missouri, in Woodberry county, and about 100 miles above this place, and is the terminus of the mail route from Dubuque, directly west via., of Fort Dodge, and opposite Dakota city in Nebraska. Go ahead, gents, you can but win the reward of your energy.

"Let those who think of settling in the region North, take a look at the advantage and inducements, held out there.

"PLATTSMOUTH, NEBRASKA.—Among the many pleasant towns, cities and villages rapidly springing up in the new and beautiful territory of the Prairie Queen, Nebraska, is Plattsmouth, the county seat of Cass county and directly at the mouth of the Platte, on the south side of that far famed river.

"Cass, is the fourth county from the Southern line of the Territory, and lies on the Missouri river 20 miles, running back 30 miles, and contains 320,000 acres of land, which is as pleasantly situated, as fertile as any of the great valleys of the West. Clear streams of pure water and handsome groves of timber are lavishly interspersed and scattered most romantically over the geographical surface, whilst the ground is covered with a rich growth of luxuriant grasses and vegetation, vines and wild fruits, spread around in so fantastical and magical a manner, that the beholder stands spell bound to the spot. Cool gushing springs are numerous and may be found probably more or less upon every half section in the county.

"The glowing wild flowers, bespangle the grassy carpeted lawn beneath the feet, whilst the odors of ten thousand sweet flowers mingling with the balmy spring breeze, fans the excited brow.

"Description of the enchanting scenery is inadequate, imagination can only fill the place of really seeing and knowing for one's self.

"Plattsmouth, the seat of justice of this county, is one of the very finest town sites upon the Missouri river, either for an inland agricultural point of view or for mercantile

pursuits. Extensive preparations are being made for opening farms and the smoke from scores of squatters' cabins, may be seen curling above their rude roofs towards the blue cloudless sky.

"The grazing herds may be seen in the distance, as mere specks upon the broad sea, as we ascend an eminence near the town site, whilst the black prairie soil as upturned by the plow, shows a lively contrast with the bright green surrounding.

"The enterprising proprietors of Plattsmouth are preparing for the erection of a first class hotel this summer, and we learn that many other fine improvements are contemplated. They appear to be men of the right stamp, and have the go-ahead in them. Our old friends, Col. Sharp, M. W. Greene and J. W. Coolidge, are among the foremost. If our Omaha friends have not a care, the capitol may yet be at Plattsmouth. This is an age of wonders.

"Those contemplating settlements south of the Platte, will do well to see Plattsmouth and Cass county before making a location.—A good ferry boat is at all times ready to cross them on short notice. Good claims may yet be found in great abundance and variety and choice lots may now be had for a small sum, or perhaps for the mere building a house upon it.

"It is astonishing that thousands and millions will huddle together amid the contagions of close cities, and starve, whilst here a kind Providence has been so lavish of her favors for the benefit of the starving poor.

NEBRASKA.—The Quincy Company at Fontanelle appear to be really in earnest in founding their colony, building a city and laying the foundation of advancement and prosperity. They have now some 50 yoke of cattle at work breaking prairie—are building houses, fencing and putting in crops most industriously. They have also a ditching machine on the ground, with which they are full confident of making a mile of fence per day.

"Considering everything, we think this the most promising and prosperous settlement in the Territory.

"We can but hope success will attend this company in all their undertakings.

"THE OMAHA INDIANS.—On May 16, the remnant of that once powerful tribe of red men, the Omahas, bid adieu to their old homes, familiar haunts, and the sacred graves of their kindred, who have gone to that invisible hunting ground, to go to their new home to the Northward. The scene of parting from their village is described by one who witnessed it, as extremely pathetic and interesting.—Major Hepner with Logan Fontanelle, accompanied the tribe, who are to receive a cash payment of some \$20,000 upon their arrival at Blackbird Hills, the place they have selected for their future home."



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHARES, OFF'D. ASK'D.		
Alabama and Tennessee.	1st mortgage, convertible in 1872.	7 1872					
Baltimore and Ohio.	Transferable. Taxed.	6 1885	79%		100	44	44
Do do	Coupons. Not Taxed.	6 1875					
Do do	" "	6 1880					
Do do	" "	7 1860					
Do do	" "	6 1885					
Bellefontaine and Indiana.	1st mortgage, convertible.	6 1866	98		50	42	
Buffalo and Penn. State Line.	1st mortgage, not convertible.	6 1866					
Chicago and Rock Island.	1st mortgage, convertible.	7 1870	94	95	86	89	
Chicago and Mississippi.	1st " "	7 1862					
Do do	2d " "	7 1874	65				
Chicago and Aurora.	1st " "	7 1866					
Cincinnati, Newcastle and Mich.	Real Estate.	7 1859					
Cleveland, Columbus, and Cincinnati.	1st mortgage, convertible.	7 1859			100	107	108
Do do do	No mortgage, convertible.	7 1855					
Cleveland and Mahoning.	1st mortgage.	7 1861			100		
Cleveland, Painesville, and Ashtabula.	2d " not convertible.	7 1861					
Do do do	1st " convertible.	7 1860				40	41
Cleveland and Pittsburgh.	1st " 2d sec. convertible.	7 1873					
Do do	1st mort. not conv. 73.	7 1863	74%	76	50	80%	82
Cleveland and Toledo.	1st mortgage " till 1855.	7 1867	75	80		70	73
Cleveland, Zanesville, and Cincinnati.	2d mortgage.	7 1868	80	83			
Cincinnati, Hamilton and Dayton.	1st mortgage, real estate, conv.	10 5 & 10 y's	27	30			
Do do do	" "	8 44%				15	15
Cincinnati, New Castle and Michigan.	2d " "	7 67%	68			45	46
Cincinnati Western.	Real Estate.	8 1859	40			13	15
Cincinnati, Wilmington and Zanesville.	1st mortgage, convertible.	7 1862	75	76			
Cincinnati, Indianapolis and Chicago.	2d " "	7 60	61				
Cincinnati and Chicago.	1st mortgage, convertible.	7 1859	80			93%	100
Columbus, Piqua and Indiana.	2d " " till 1862.	7 1863	65	66	50	25%	30
Columbus and Xenia.	Income.	10 72	75		50		
Covington and Lexington.	1st " "	7 1867			50	20	22
Do do	1st " "	7 1862					
Dayton and Michigan.	1st " "	7 1864	26	30			
Dayton and Western.	1st mortgage.	7 1862	60		25	30	32
Dayton, Xenia and Belpre.	1st mort. guaranty Mich. S. R. R.	7 1862					
Eaton and Hamilton.	1st mortgage.	7 1862	80	81			
Erie and Kalamazoo.	" "	7 1862				12%	14
Evansville and Crawfordsville.	" "	7 1862					
Fort Wayne and Southern.	" "	7 1862					
Franklin and Warren.	" "	7 1862					
Galena and Chicago Union.	Pledge of second section, convertible.	10 1853-6	92%		100	97	100
Hillsboro and Cincinnati.	1st mort.	7 55	60		50	20	25
Illinois Central.	1st mortgage, not convertible.	6 1875	78	80	100	96	100
Do do	Freeland.	7 71%	74				
Indiana Central.	1st mortgage, convertible.	7 1866	63%	75	50	45	50
Do do	" "	10 1857	80		50		
Indianapolis and Bellefontaine.	1st " "	7 1860-1	75		25	50	50
Indianapolis and Cincinnati.	Dividend.	7 65	67		50	67	60
Indianapolis and Lafayette.	" "	7 1861			50		
Jeffersonville.	1st " not "	7 1861				36	
Junction (Ohio).	1st " "	7 1867			50	15	17
Do Indiana.	Real Estate.	10 72	73			12%	
La Crosse and Milwaukee.	" "	8 1864	77	82	100		
Little Miami.	1st mortgage, not convertible.	6 1863			50	100	101
Do do	" " till 1855.	7 1861					
Louisville and Nashville.	" unconvertible.	7 1858	93%		100		
Lyons', Iowa, Central.	1st mortgage, convertible.	7 1873					
Mad River and Lake Erie.	1st mortgage, convertible till 1855.	7 1855-6	75		50	30	32
Do do	2d " "	7 1866	75				
Do do	Dividend.	7 1860	75				
Madison and Indianapolis.	1st mortgage, convertible after 1853.	6 1861			50		
Marietta and Cincinnati.	Domestic Bonds.	7 1868	57%	60	50	25	30
Do do	2d " "	7 1868			50	25	30
Hillsboro and Cincinnati.	1st " "	7 1861					
Maysville and Big Sandy.	" "	7 1861					
Maysville and Lexington.	1st mortgage, convertible.	6 1873			50		
Memphis and Charleston.	No mortgage, convertible.	8 1860	97		90	91	
Michigan Central.	" " not "	8 1855-6					
Do do	" " "	8 1857-8					
Michigan Southern.	1st " " "	7 1860-90	100		101%	103	
Milwaukee and Mississippi.	1st " " 1857	8 1862					
Mobile and Ohio.	1st mortgage 6s. 1884	7 1862					
Nashville and Chattanooga.	mortgage on 1st section.	10 1858-62			50	20	20
New Albany and Salem.	" on other section, convert.	8 1864-75					
Do do	1st " convertible.	6 1873					
New Castle and Richmond.	" "	7 1873	103%	104			
New York Central.	1st mortgage, not convertible.	7 1867			100	93%	96
Do do	2d " convertible.	7 1871	84%	85	48	50%	
Do do	" "	7 1883	94%	95			
Northern Cross, Ill.	1st mortgage, convertible.	8 1873					
Northern Indiana.	1st " not convertible.	7 1861	79		97	98	
Do do	1st " Goshen line.	7 1868	89%	90			
Do do	Construction Bonds.	7 1861	61		40	41	
Ohio Central.	1st mortgage, convertible.	7 1861	56	60	50	22	25
Ohio and Mississippi.	2d " "	7 1880					
Ohio and Indiana.	1st " "	7 1867					
Ohio and Pennsylvania.	" "	7 1865			50		
Do do	Income. No mortgage, convertible.	7 1872					
Pacific, Mo.	1st mortgage, convertible.	7 1866	101%	105			
Panama.	" Guar. City of Baltimore.	7 1873			100	44	44
Parkersburgh (or Northwestern Va.).	1st mortgage, convertible till 1860.	6 1880			50	43%	40
Pennsylvania.	1st " "	7 1872			25	30	
Peru and Indianapolis.	1st " "	7 1860			50		
Rock River Valley Union.	1st " "	10 1853-7					
Sandusky and Mansfield.	2d " "	7 1861	50	51	50	50	51
Do do	1st " income.	7 1861					
Scioto and Hocking Valley.	" "	7 1865					
Southwestern, Tennessee.	1st mortgage, convertible.	7 1865	75%				
Springfield and Columbus.	2d " "	8 1862-72					
Steuensville and Indiana.	1st " "	8 1865					
Terre Haute and Alton.	1st " "	6 1866					
Do do	2d " "	7 1863	87	88	50		
Terre Haute and Richmond.	1st " "	7 1863					
Toledo, Norwalk and Cleveland.	2d " "	7 1863					
Do do do	Guar. of C. C. & C.	1883					
Do do do	" "	1883					



## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D
U. S. Loan.....	6	1856	105	105
Do.....	6	1862	112½	112
Do.....	6	1867	118½	120
Do.....	6	1868	118½	120
Do (int. ceased July 1) 5	1853			102
Do Coupons.....	6	1862		118
Do.....	6	1867		118
Do.....	6	1853		101

## STATE.

Alabama.....	5			
California.....	7	1870	71	92
Arkansas.....	6			96
Georgia.....	6		95	99½
Do.....	7			
Illinois Canal Bonds.....	1860			
Do do registered.....	1860			
Do do.....	1847			
Do do registered.....	1847			
Do do Internal Imp't. 6	1847		94	95
Do Interest do.....	5		64	64
Indiana.....	2½		85½	87
Do.....	2½		53	54
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			

Kentucky, 30 years.....	6	1871	103	
Do.....	6		102	
Do large bonds.....	6	1869-72	97	
Do.....	5			
Louisiana.....	6		91½	92
Michigan.....	6		97	98
Missouri.....	6		93½	95
New York.....	6	1860-61	109	110
North Carolina.....	6		99	100
Ohio.....	6	1856	101½	
Do.....	6	1860	104½	105
Do.....	6	1870	111	112
Do.....	6	1875	112	113
Do.....	5	1855		
Pennsylvania.....	6			
Do.....	5	1870	87	88
Tennessee, long loan.....	6	1890	94	95
Do Coupons.....	5		82	83
Virginia Coupons.....	6	1866	88	99

## CITY SECURITIES.

Albany.....	6	1871-81	99½	
Allegheny.....	6	1875-7	80	
Baltimore.....	6	1870-90	96½	97
Do.....	5	1865		
Boston Bonds.....	4½	1860		
Chicago.....	6	1873-7	92½	95
Cleveland.....	6	1879	103½	105
Cincinnati.....	6	1864-92	96	96½
Do.....	6	1897		
Do.....	5	1884		
Do W. W.....	6	1865		
Covington.....	6	1857	75	77
Lawrenceburgh, Ia.....	7			
Louisville.....	6	1880	84	89
Memphis.....	6	1882	72½	
New York.....	7	1857	100½	
Do.....	5	1858-60	96	98
Do.....	5	1870-5	97	100
Do.....	5	1890		
Philadelphia.....	6	1876-90	92	93
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1883		
Racine.....	7	1873	61½	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1872	74	76

## COUNTY BONDS.

Bourbon, Ky.....	6	1881		
Darke, O.....	7			
Fairfield, O.....	7	1862		
Eayette, Ky.....	6	1881-3	75	75
Hancock Co., Ky.....	7		75	77
Mason, Ky.....	6	1881	69	66½
McCracken Co., Ky., endorsed by				
New Orleans and Ohio R. R.				
St. Louis.....	6	1866	80	85
Do.....	7	1871		

## BANKS.

American Exchange Bank, N. Y.....	105½			
Ohio Life Insurance and Trust Co.....	94		95	
Washington Insurance Co.....	84		85	
City Insurance.....	70			
Cincinnati Insurance Co.....	84			
National Insurance.....	75		80	
KENTUCKY.				
Bank of Kentucky and Branches.....	100			
Northern, and Branches.....	100			
Southern, and Branches.....	93			
Bank of Louisville.....	93			
Kentucky Trust Co.....	105		106	
Farmers' Bank of Kentucky.....	105		106	
Commercial Bank of Kentucky.....				
INDIANA.				
State Bank and Branches.....				
TENNESSEE.				
State Bank and Branches.....				
Union.....				
Planters.....				

## LAND WARRANTS.

160 acre warrants.....	176			
80 acre warrants.....	88			
40 acre warrants.....	44			

## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	½	½
Boston.....	Sight.....	½	½
Philadelphia.....	Sight.....	½	½
Baltimore.....	Sight.....	½	½
New Orleans.....	Sight.....	½	½
England.....	Sight.....	110	110½

## SPECIE.

California clean, ½ oz.....	\$17 60	@	\$17 65
Spanish Doubloons.....	16 75	@	16 75
Patriot Doubloons.....	15 75	@	15 80
Sovereigns.....	4 85	@	4 87
Guineas.....	5 09	@	5 00
American, new.....	1 00	@	1 00
American, old.....	1 06	@	1 06
Portuguese.....	1 00	@	1 00½

## SILVER.

American Dollars.....	1 04	@	1 04
American Halves.....	1 04	@	1 04½
Spanish Dollars.....	1 12	@	1 13
Spanish Quarters.....	1 00	@	1 01
Mexican Dollars.....	1 05½	@	1 06
Five Franc pieces.....	97½	@	98

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.  
BY HEWSON & HOLMES.

For the week ending June 6, 1855.

\$3,000 Hancock Co., O., 7 per cent. Bonds, Interest payable annually in New York.....	75 (& int.)	
1,000 Cin., Ham. & Day R. R. Co., 7 per cent. 2d Mort. Bonds.....	80	"
2,000 City of Cov. 6 per cent. Bonds, re- deemable in 1857.....	75	"
5,000 Ohio & Miss. R. R. Co., 2d Mort. 7 per cent. Bonds.....	56	"
2,500 Scioto & Hocking Valley R. R. Co., 7 per cent. Income Bonds.....	50	"
1,000 Cov. & Lex. R. R. Co., 10 per cent. Income Bonds.....	70	"
3,000 Cov. & Lexington R. R. Co., 10 per cent. Income Bonds.....	72	"
2,000 Cin., Wil. & Zanesville R. R. Co., 7 per cent. 2d mort. Bonds.....	67½	"
100 Indianapolis & Cin. R. R. Co., 7 per cent. Div. Bond.....	65 (& int.)	
98 Shares Marietta & Cin. R. R. Stock.....	25	"
25 " Cin., Ham. & Day.....	70	"
40 " Cov. & Lexing. ".....	25	"
6 " Indianapolis & Cin. ".....	57	"
45 " Ohio & Mississippi ".....	22	"
100 " " 15 ds. ".....	20	"
100 " " 30 " ".....	20	"
328 " " 60 " ".....	20	"
1570 " " ".....	16	"
200 " Cincinnati & Chicago ".....	15	"
100 " " ".....	12½	"
50 " Little Miami Ex-div. ".....	95	"
28 " Mad River & L. Erie ".....	30	"
51 " Eaton & Hamilton ".....	30	"
120 " Ft. Wayne & South. ".....	12½	"
100 " Cin., Har. & Ind. ".....	8 (& int.)	
160 " Cincinnati & Chicago ".....	10	"
60 " " ".....	10½	"

## LONDON QUOTATIONS

OF  
AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF  
E. F. SATTERTHWAITHE, STOCK BROKER, LON.  
May 18th, 1855.

Cleveland and Pittsburgh, 1st Mort, 1850. —	@	80
Erie, 3d Mortgage, 1853, ".....	84	" 85
" Sinking Fund, ".....	79	" 80
Grand Trunk (Canada) Debenture, ".....	90	" 92
Great Western " conv. ".....	107	" 109
" " non-conv. ".....	100	" 102
Illinois Central, 1st Mort., 7s.....	67½	" 68½
" " 6s.....	64	" 66
Marietta and Cincinnati, 1st Mort., ".....	77	" 82
Michigan Central, conv., 8s.....	90	" 93
N. York Central, No Mort. Not conv. ".....	80	" 82
" " conv. ".....	93	" 95
Ohio and Mississippi, 1st Mort. ".....	—	" 82
Pennsylvania, 1st Mort., conv. ".....	89	" 90
" Sterling, 2d Mort. ".....	88	" 90

## Monetary and Commercial.

The principal feature of the week just past is the fall of abundant rains and the unusually cold weather at this season of the year. Whatever anticipations there may have been of a dry season, they are, for the present, at least, dispelled. We have had very abundant rains, and the country must be nearly saturated.

In Monetary and Commercial affairs we have little to note. The offerings of prime paper continued light,

while those of second class and names less known are abundant. Discounts on first class securities are readily obtained at 10 @ 12 per cent.; other varieties not so readily at 15 @ 24.

Eastern Exchange is steady at ½ @ ¾ per cent. premium. New Orleans, from ½ discount to par.

In Stocks there is some activity, at varying prices.

We learn from the East, that there has been more animation in the Stock market. Numerous orders, from abroad, are received for such Stocks as are known to be sound. Railroad securities are advancing. The redemption of United States Stocks, at Washington, for the week amounted to \$21,250.

The Exchange market is well supplied at 109½ @ 110½.

## SALES AT THE NEW YORK STOCK BOARD.

\$3,000 Ind. State 5's.....	85½
500 Cal. 7s 70.....	91
2,000 N. Carolina 6's.....	98½
1,000 Erie Bonds '83.....	93½
5,500 " " 75.....	88½
4,500 Ill. Cent. R. B. Bonds.....	77½
2,500 N. Y. Cent. Bonds.....	88½
7,000 Panama Bonds 2d issue.....	101½
15 Shares Ohio Life & Trust Co.....	94
175 " N. Y. Cent. R. R.....	93
175 " Erie.....	48½
230 " Panama Railroad.....	100
75 " Mich. Cent.....	90
300 " Reading.....	88½
10 " Cleve., Col. & Cin.....	107
68 " Galena & Chicago.....	98
116 " Chicago & Rock Island.....	86

## MONTGOMERY AND WEST POINT R. R.

We have received a copy of the annual report of the President and Directors of this Company, says the Montgomery Mail.

The receipts of the year ending March first, 1855, have been:

Frcm Passengers.....	\$141,666 33
" Freight.....	84,432 41
Mail pay.....	24,129 65
	249,628 99

Expenses have been for Repairs and Working the Road.....	\$135,304 50
Interest on Loans.....	33,346 95
	168,651 55

Net Income..... \$80,977 14  
eight per cent. on the capital stock Showing the increase over last year of receipts \$19,582 64, and this too under circumstances of unparalleled depression.

ROME AND WATERTOWN RAILROAD.—The following is a comparative statement of the earnings of this road for the month of April in 1854 and 1855.

	1854.	1855.
Passengers.....	\$12,361 15	\$13,060 83
Freight.....	13,948 09	14,757 71
Mails, etc.....	1,097 56	902 81

Total.....	\$27,406 80	\$28,721 35
		27,406 80

Increase in 1855..... \$1,314 55

OSWEGO AND SYRACUSE RAILROAD.—The receipts of this road for the last four months of the year were:

January.....	\$4,216 02	\$6,064 06
February.....	2,965 96	3,013 80
March.....	4,239 05	4,153 42
April.....	6,335 98	9,421 74

Total.....	\$16,757 01	\$23,653 02
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Total Passenger and Freight.....	\$39,810 03
Same months, 1854.....	31,318 98

Increase (27½ per cent.)..... \$8,491 05

VIRGINIA CENTRAL RAILWAY.—The earnings of this road for April were:

From Passengers.....	\$10,666 05
From Freight.....	19,293 64
From Express.....	377 81
From Mail.....	1,151 25

Total.....	\$31,399 42
Receipts for April, 1854.....	26,611 17

Increase, equal to 18 per cent..... \$4,788 25

The road is the same length it was last year, and five hundred tons of iron for the track west of Staunton have been transported over it and not placed in the above account.

COBBOURG AND PETERSBURGH RAILWAY.—The business on the Cobourg and Petersburg Railway is increasing rapidly. The Cobourg Star says there are several millions feet of lumber waiting at Peterborough, which cannot be brought down till the new locomotive arrives, which will probably be about Monday next. One mill alone agrees to supply two and a half millions of feet per month.



## Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,

PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENN'A R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Baucroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.,—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## Mercurial Steam Gauges.

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

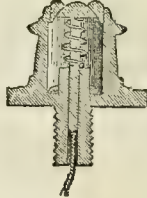
COMMITTEE—MESSRS. DURAND, FULTON and TILTON.

Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

## RICHARDSON'S

PATENT



OIL  
CUPS



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
64 Courtland St., New York.

NOTICE TO CONTRACTORS.—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road on Obion (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburg and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

may 17-4t.  
[Railroad Journal please copy.]

BECKER & RUST,

General Contractors.

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AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,

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I WOULD respectfully call the attention of Railroad Companies and Contractors to my facilities for NOTCHING RAILROAD IRON

Suitable to be spiked in the Chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. Address,

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Box 705, Cincinnati P. O., Ohio.

## Railroad Record

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T. WRIGHTSON & CO.,  
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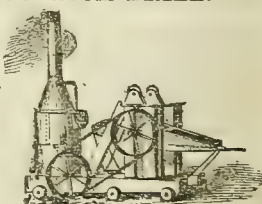
DESIGNED FOR Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.

A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

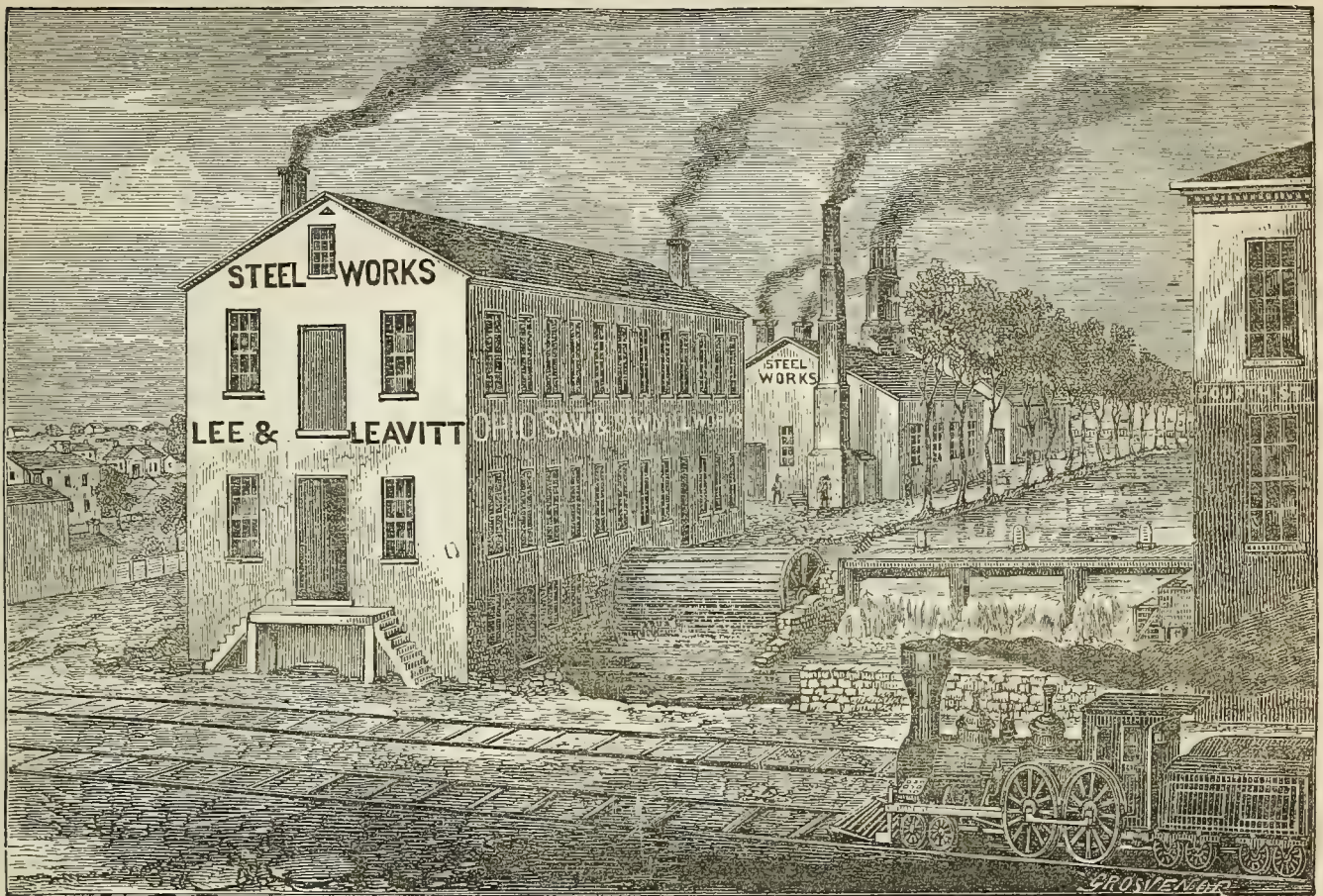
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And of Cast Steel Mandrills, Railway Frog Points, Sledge Hammers, and every kind of Cast Steel Tools.  
Also, Portable Circular Saw Mills, Horse Powers and Engines.

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THE Field Practice of Laying out Circular Curves for Railroads. By John C. Trautwine, Civil Engineer.—4th Thousand, in pocket-book form with tucks.

—ALSO—

A New Method of Calculating the Cubic Contents of Excavations and Embankments, by the aid of Tables and 10 Engraved Plates of Diagrams. By John C. Trautwine, C. E.; 2d edition.

Price, one dollar each. Postage on the Curves, five cents; on the Excavations and Embankments, eight cents. For sale by

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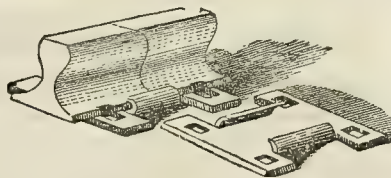
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Nov. 5 tf

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The best quality of refined iron is used, and all orders filled with despatch.  
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470 TONS, 47 lbs. per yard, good quality and pattern, now lying at New Orleans. For terms apply to  
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HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr. Locke's Hand Level always for sale. For construction and use, see R. R. Record of October 20th, 1853. mar1-tf

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**28**  
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**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
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WHALEBONE AND STEEL WIRE BRUSHES.

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**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**

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For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

For warming air, boiling water and heating ovens.

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**CELEBRATED CAST STEEL,**

For Plates, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**

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STOP COCKS, Bibb, Flange, Valve, Gauge, and Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes, Couplings, Salt Well, and Hose Joints; Steam Whistles, Distillery Work, General Brassers, Anti Friction Metal, Spelter Solder, and Copper Rivets.

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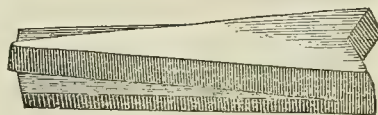
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Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared. mail-ly

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Guages**

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT, 15 Walnut st., Cinti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**Terre Haute & Richmond R. R.**



**Summer Arrangement.**

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A.M., arrives at Terre Haute at 11.55 A.M., connecting with the 12.30 P. M., Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to S. Louis 28½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.

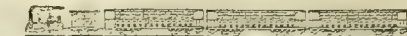
MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855.

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, and Dayton**  
**RAILROAD.**



**SUMMER ARRANGEMENT.**

COMMENCING MONDAY, MAY 7th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Lightning Express, at 6.05 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**SECOND TRAIN.**

Indianapolis Express, at 5.05 A. M. for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 12 M., for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.15 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Passengers by the 6 A. M. Lightning Express Train, go directly through to Cleveland without changing cars. Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.  
 The Omnibus Line will call for passengers by leaving their names at the Office.

**WINTER ARRANGEMENT.**  
**SAFETY.—SPEED.—COMFORT.**

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena and**  
**Rock Island,**

BY THE WAY OF THE  
**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.  
 TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed

THROUGH BY DAYLIGHT TO TERRE HAUTE,  
 LAFAYETTE, PERU, &c.

Trains leave the Depot of the Cincinnati, Hamilton and Dayton Railroad as follows, viz:

First Train.—Lightning Express at 6 A. M.

Second Train.—Accommodation, at 2.15 P. M., connecting at Richmond with train for Hagerstown, New-castle, &c., &c;

Third Train.—Accommodation, at 5.20 P. M., for Richmond and intermediate points.

Returning, reach Cincinnati at 10 A. M. and 12 M. and 6 P. M.

Fare to Indianapolis.....\$3 50

“ Lafayette..... 5 50

“ Terre Haute..... 5 75

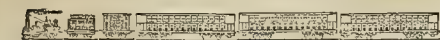
For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

JOHN W. SHIPLEY, Agent.  
 The Omnibus Line, will call for passengers by leaving their orders at the offices.

feb. 8-ly

WM. H. SMITH, Conductor.  
 D. M. MORROW, Superintendent



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,  
ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

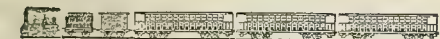
FOR FREIGHTS IN EITHER DIRECTION

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, and various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.  
**WM. G. HARRISON,** President, **JOHN H. DONE,** Mast. of Transportation,  
je. 8† Baltimore.

**The Shortest, Quickest and Best  
ROUTE TO LOUISVILLE.**

MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.

**OHIO & MISSISSIPPI RAILROAD,**

ON MONDAY, SEPTEMBER 13, AND UNTIL FURTHER notice, the Passenger Trains will run as follows:

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.**

**For Indianapolis.**

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.**

**For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 3 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.53 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M., 2.30 P. M., 4.05 P. M., and 9.30 P. M.

Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth Street, north side, four doors from Vine Street, opposite new Custom-house.

S. S. POST,

Chf. Eng'r and Supt.  
Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.  
W. S. BABCOCK, Agent,  
Sept. 5. St. Louis and Cincinnati Omnibus Line.

**1855. Winter Arrangement, 1855.  
COMMENCING MONDAY, JAN. 29.**

LITTLE MIAMI AND COLUMBUS, AND XENIA RAILROAD.—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

**FROM CINCINNATI TO**

To New York in.....	32 1/2 hours.
To Philadelphia in.....	31 1/2 "
To Washington in.....	29 "
To Baltimore in.....	28 "
To Buffalo in.....	16 1/2 "
To Dunkirk in.....	15 "
To Cleveland in.....	9 1/2 "
To Sandusky in.....	8 1/2 "
To Pittsburgh in.....	14 "
To Wheeling in.....	10 1/2 "

**FOUR DAILY TRAINS.**

FIRST TRAIN.—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

SECOND TRAIN.—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

THIRD TRAIN.—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Morrow.

FOURTH TRAIN.—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**FARE AND THROUGH TICKETS.**

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-boat Landing, or at the Eastern (Little Miami) Depot, East Front street.

WM. H. CLEMENT, Superintendent.  
P. W. STRADER, General Agent

**OMNIBUS LINE.**

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

**COLUMBUS, PIQUA, AND INDIANA RAIL-  
ROAD.**

New route from Columbus, West, and from Urbana, East.

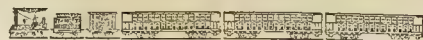
On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-11

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.  
Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.  
On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Falmouth, Cullensville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

**FOR THROUGH TICKETS,**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.  
J. M. DOUGHERTY,  
Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices.  
oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago,  
and St. Louis, by Indianapolis & Cin-  
cinnati Railroad.**

VIA LAWRENCEBURG.  
IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 7.15 A. M., and 3.15 P. M. Arrive at Indianapolis at 11.30 A. M., and 8.30 P. M.

By Morning Train, passengers arrive at Chicago in 14 hours, and at St. Louis in 28 hours.

Freight shipped to Indianapolis and all other points West and North without delay, at cheapest rates.

Cars run from Lawrenceburg to Terre Haute, Lafayette, Peru and Chicago, without unloading.

Office, foot of Main Street, corner of Water Street.  
SIDNEY RICE,  
Cincinnati, Sept. 28, 1854. Agent.

**General Map Establishment,  
No. 3 College Hall, Walnut St., Cincinnati****E. MENDENHALL,  
MAP, BOOK & PRINT SELLER,**

Has constantly on hand  
GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND  
OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers,  
Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES.

**DRAWING INSTRUMENTS, &c.**

Publisher of the  
**Railway Map of the Western States,**  
In Sheet or in Pocket Case;

The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
the LARGE MAPS OF CINCINNATI, and HAMILTON Co  
Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.

**MAPS OF EVERY DESCRIPTION.**

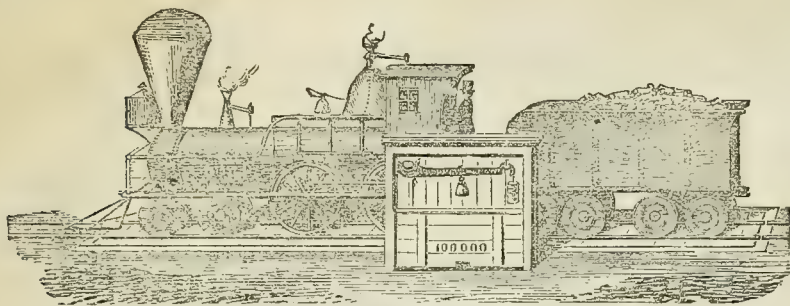


ISAAC RIGDON.

EDWARD C. RYLAND.

WM. HUDDART.

## OHIO SCALE WORKS.



**Rigdon, Ryland & Co.,**  
Nos. 4 & 6 West Second street, between Main and Walnut sts.,  
CINCINNATI.

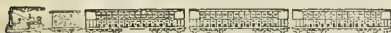
WE are now prepared to furnish **Railroad Track and Depot Scales** of all sizes, which we warrant in every respect equal to any manufactured in the United States.

Being practical workmen ourselves, we feel confident that we can furnish the West and South with as good an article and cheaper than can be bought East.  
Cincinnati, June 29, 1854.

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.

LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNYS & PECK,  
je.8-1f Louisville, Ky.

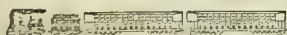
## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

## LOCOMOTIVES OF SUPERIOR QUALITY.

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
je.27. RICHARD NORRIS & SON.

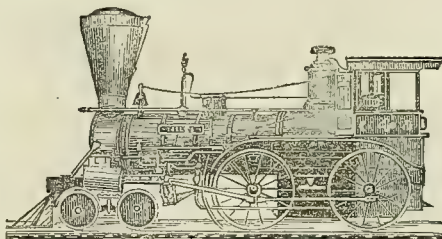
## NUGENT'S COLLEGE

OF  
**ENGINEERS & MECHANICS,**  
PUBLIC SQUARE, CLEVELAND, OHIO.

C. NUGENT, C. E., Principal.

The design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
au.10.

## LOCOMOTIVE WORKS.



NILES &amp; CO.,

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shuffling, &c. &c.  
feb. 13 1855 6m.

## Lightner's Patent Axle Boxes for Railroad Cars

The attention of Railroad Managers and others is called to this valuable improvement in

## AXLE BOXES.

The first cost and "fitting up" of these boxes is 20 to 25 percent, below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.

## PROSSER'S PATENT

## Lap-Welded Iron Boiler Tubes.

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Arwing Frames, Leaders, etc.

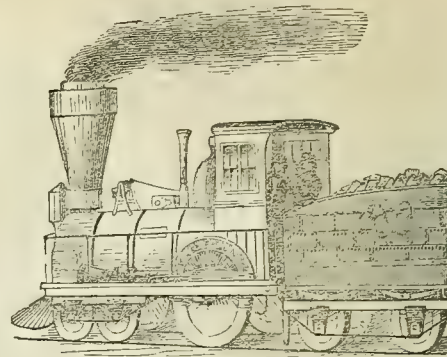
Brass Boiler Tubes.  
Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Ties, Platers' Rollers, etc.

P. S.—All Tools necessary for the construction or keeping in order Tubular Boilers.

THOS. PROSSER & SON,  
28 Platt Street, New York.

## Cincinnati Locomotive Works!



The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 MOORE & RICHARDSON.

## WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T & E. Wason, Springfield,  
+oc20 Massachusetts.

## Railroad Car Findings.

BRIDGES &amp; BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fitted  
Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

## Cotton Duck for Car Covering,

Of any required width to 124 inches.

## ENAMELLED HEAD LININGS

Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

## Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport &amp; Bridges, Car Manufacturers,

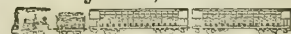
Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

## CAR MANUFACTORY,

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops, are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

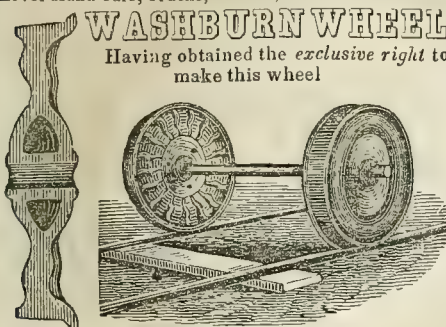
Dayton, Jan 24th. 1853.

Jan 25th



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

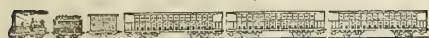


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16th\* **JOSEPH DAVENPORT.**

### S. C. THOMSON & CO.,

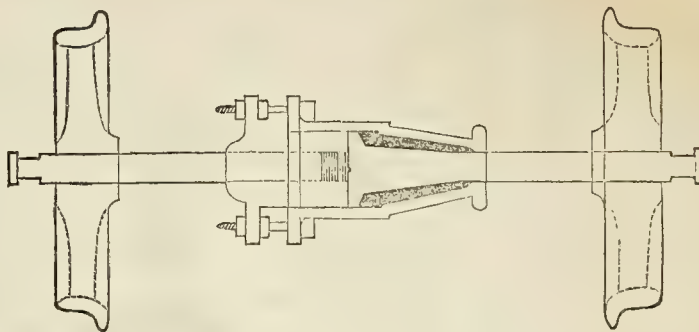
MANUFACTURERS OF

## PATENT PAD LOCKS,

For Railroad Switches, Merchandise Cars Stores, Cemeteries, Iron Safes, &c.,

**Cor. Railroad Avenue and Market st.,**  
n. 12th **NEWARK, N. J.**

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of Divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**

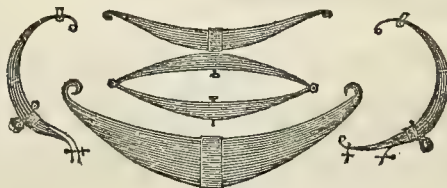
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

37104

## MCDANIEL & HORNER,

**LOCOMOTIVE AND CAR SPRING**



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

**NORRIS BROTHERS, Locomotive Builders, Philad.**

**A. C. GRAY, Prest. New Castle Manuf. Co.**

**U. WELLS, R. R. Car Manuf. Petersburg, Va.**

**I. R. TRIMBLE, Supt. Philad. R.R. Co.**

May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.**

**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**

**THOMAS DOUGHERTY, Master Mach. do.**

**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.**

## DURYEE & FORSYTH'S PATENT PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

**HEWSON & HOLMES,**  
83 and 85 Walnut Street.

### THOS. M. CASH,

## PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

### REFERENCES.

**Richard Norris & Son, Locomotive Builders, Philad'a,**

**Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "**

**Charles H. Fisher, Esq. "**

**Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.**

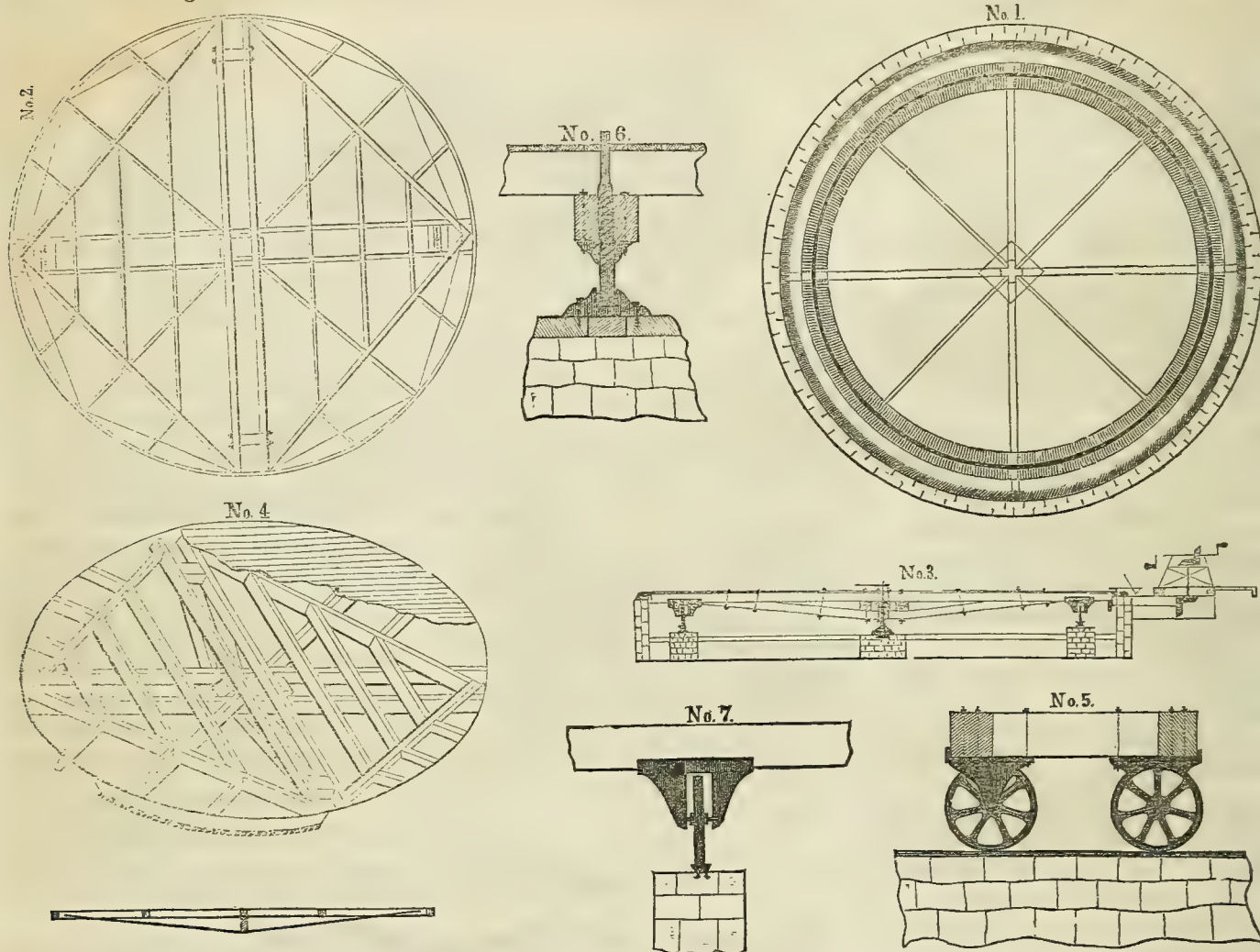
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Oct. 13-44.



# CARHART'S IMPROVED TURNTABLE.

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This Table, together with an Engine and Tender of 30 Tons Weight, can be turned by One Man in 25 Seconds.

RAILROAD COMPANIES in want of Turntables of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction.

The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborn, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Sup't, Marion, O.  
Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, North Carolina.  
Central North Carolina Railroad.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.  
Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of *Bank and Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing, including the miter-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

D. M. CARHART, Cleveland, Ohio.

## RAILROAD HOTEL.

CINCINNATI, O.

THE GIBSON HOUSE, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.

A. WETTERSEE, Proprietor.

## TO RAILROADS AND CONTRACTORS.

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# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:  
THURSDAY MORNING,.....JUNE 14, 1855.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

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ACKNOWLEDGMENTS.—We are indebted to the officers of the Eaton and Hamilton R. R. Co., for a new supply of their reports and of the laws relating to the incorporation of the Company.

The officers of the Evansville, Indianapolis and Cleveland Staigt Lue R. R. have our thanks, for full files of their reports.

The Cairo and Fulton R. R. Co. for the proceedings of the second annual meeting. Please send us the back reports.

Hon. Wm. Perry for the State Director's Report on the Delaware and Raritan Canal and the the Camdem and Amboy R. R. Co. Sidney Rice, Esq., for some of the back numbers of the Record, Vol. 3.

E. Gest, Esq., of the Dayton Short Line R. R., for several of the back numbers of the third volume of the Record. We lack now only two No. 3's (March 15), and No. 5 (March 29), to have two complete sets of the present volume.

MEMOIRS OF DR. DANIEL DRAKE.—The undersigned propose to publish, in July next, the Memoirs of the late DR. DANIEL DRAKE, Physician, Professor, and Author, carefully prepared from Original Letters and Documents, by EDWARD D. MANSFIELD, of this city. As Dr. Drake was known, by reputation, to the whole profession and public, it is needless for us to say more, than that the work will be authentic and accurate in all particulars. The patronage of the profession and public is respectfully solicited.

Single copies, one Vol., will be sent to the address of any individual, at the retail price, \$1 25.—Copies for re-sale, will be sent, by the quantity, at the usual Discount.

APPELGATE & Co.,  
Booksellers & Publishers, 43 Main St.

VOL. III.—No. 16.

## THE GREAT SECRET OF RAILROAD SUCCESS—THE DIFFERENCES OF COST AND EXPENSES.

In the result of railway business, we see some extraordinary differences, which at first seem unaccountable.

Two railways, A. and B., are equally well located for business; both, in fact, do a heavy business, and both are conducted by intelligent, upright men; but railway A. makes large profits, and railway B. but small ones. What is the matter? The real matter is the *want of economy*; but this has two different bearings, one on the *cost* of the road, and the other on the *expenses*. The *cost* of a railway is counted different ways, by different financiers. In fact, the *whole cost of everything which does not enter into running expenses*, is the *cost* of the road, on which dividends must be made, or interest paid. In this cost on original capital, there are many ways in which *waste* is made, and the stockholders and the public none the wiser. Thus part of the capital must be raised on bonds. This is raised, on more or less *discount*; and it is in the discretion of the directors how much this *discount*, etc., may be. We see railways who have got their loans at 95, and others who get them at 75. To this must be added *commissions, brokerage*, etc. Then *interest* must be paid on loans, till the road is complete, which is part of the capital. Then, one road contents itself with a Depot and ground at \$100,000, and another pays \$500,000. Then one road *subscribes* to other railways,—in other words, Branches, by way, or is supposed of increasing its own business, not reflecting that all the business which is natural and profitable to it, will come at any rate.

Then, it is fashionable to pay *stockholders interest* in scrip or stock, which is just so much added to the capital. Now let us take an example of two railways, having equal advantages, adopting in these respects, opposite policy. Let us suppose two railways entering the city of Cincinnati, one hundred miles in length, and requiring three years to construct, To illustrate the case, suppose the items of cost to be as follows:

	Railway A.	Railway B.
Original Stock.....	\$2,000,000.....	\$2,000,000
Two years Interest.....	320,000.....	240,000
Bonds.....	2,000,000.....	2,000,000
Discount.....	400,000.....	200,000
Brokerage.....	160,000.....	50,000
Floating Debt.....	500,000.....	100,000
Interest “.....	50,000.....	6,000
Subscriptions to other Roads.....	400,000.....	
Totals.....	\$5,770,000.....	\$4,596,000
	4,596,000	
Wasted.....	\$1,174,000	

Now, here is no want of integrity or intelligence in Railway A.; yet, when the road is made, the stockholders find that the capital expended is *one million one hundred thousand dollars* more than it ought to be! How has it been done? It has gone in *Discounts, In-*

*terest, Brokerage, Floating Debts, and Branch Roads.*

We have supposed a very moderate cost. There are railways all over the country, whose *wastage* is far greater than this.

Now, let us look at the results. If we suppose both roads to do a heavy business, of about the same amount, and the expenses about the same, say 50 per cent. of the gross proceeds, we shall have something like this result:

Railway A. Cost.....	\$5,770,000
Nett Profits.....	360,000
Result—Dividend.....	6 per c't.
Railway B. Cost.....	\$4,596,000
Nett Profits.....	360,000
Result—Dividend.....	8 per c't.

Now, here we see that the *wastage* which may very easily occur in constructing a railway, makes two per cent. difference in the dividends, and maintains the stock of one road above par, and the other below it.

The next great difference is the difference of *expenses*, and that depends very much on the *management* of the road. Expenses vary from 35 to 60 per cent. of gross earnings. They should not exceed 50 per cent. Suppose now in the above roads, the expenses of A. to be 50 per cent. and that of B. 40 per cent; then A. will secure \$360,000, and B. \$432,000. A. will divide 6 per cent., and B. nearly 10 per cent.

Reverse this and A. will divide 9 per cent., and B. 8 per cent. A. will thus have made up in the *economy* of expenses, what it lost in the *wastage* of cost.

The great secret of railway success is precisely that of any individual. It is *economy*. It is *saving* the loose ends, and holding all employees to the strictest accountability. It is true that some railways must cost \$50,000 per mile, while others cost \$20,000. But, these are differences to be taken in view, before the work is made. It is to be considered whether one road will have business enough to pay well, at double what another costs.

Railways, in future, will probably be built with less wastage; for the subject is now pretty well understood, and it will be found easier to raise capital by a manly, straightforward exposition of real *needs*, than by any attempt at artificial devices.

## A NEW BOILER.

We notice in some of the Philadelphia papers a trial of a new style of boiler, which they claim occupies but one-sixth the space, costs but one-half the price, and consumes but one-third the fuel that the ordinary cylinder boiler does. It is claimed for this boiler (described a six horse power boiler) that it consumes but half a ton of coal per week. If half what is here claimed is true, it is undoubtedly a great invention. Will some of our Philadelphia friends take the trouble to give an intelligent description of the principal features of the boiler.



# CONSUMPTION OF FUEL ON RAILWAYS— EXHAUSTION OF WOOD.

We have noticed the fact of the rapid consumption of fuel, on Railways. The subject is one of great importance, and the time is near, when locomotives must depend for fuel only on coal. That the subject may be understood, and brought to the notice of railway companies, we shall give a comparative view of the consumption and supply of wood, on railways.

The following is the number of miles, and the wood consumed, on five railways :

	Miles.	Cords.
New York and Erie.....	460	65,000
Pennsylvania Central.....	353	27,000
Little Miami.....	84	16,000
Cincinnati and Dayton.....	60	10,000
Xenia and Columbus.....	54	7,000
Aggregate.....	911	125,000
Average per mile.....		140

About *one hundred and forty cords per annum*, for each mile, is the actual consumption of wood, on railways. Of course, the more trains and greater business, the greater consumption of fuel. Let us now see what is the annual consumption of fuel, as compared with the supply. Five miles is about as far as wood can be hauled economically to market, and a belt of ten miles is the space, on which wood, consumed by the cars, must be procured. This gives 6,400 acres to each mile. In the country on railways, it will be a large allowance to say that one third the land is heavily wooded, and fifty cords per acre will be a large estimate. This will give 108,000 cords of wood per mile; but of this, there is an immense consumption for domestic uses. In a belt of ten miles, there are 40 persons per square mile, making about 80 families per mile of railway. These burn an average of 20 cords each. One fourth as much more must be allowed for fencing; so that we have this result:

Domestic Consumption.....	1,000	Cords per mile.
Fencing.....	400	" " "
Railways.....	140	" " "
Aggregate.....	2,140	Cords.

It results, then, from this, that in 50 years, all the wood in the vicinity of railways will be consumed. In the meantime, as the supply in proportion to demand is diminishing with each year, the price must be continually rising, and the expense of the roads increasing.—The present cost of fuel on the above five roads, making 911 miles of railway, is \$583,834 per annum. At the same ratio, the cost of fuel, on all the railways of the United States, is *eleven million of dollars per annum!*

On the Erie railroad, the cost of wood is more than \$6 per cord. On the Cincinnati, Hamilton and Dayton road, the cost is \$3.00 per cord.

This suggests, at once, the necessity of burning coal in locomotives, as a matter of economy. On our Western railways, many of which run through coal banks, coal need

not exceed 8 cents per bushel, and at that rate, does not cost more than *one third* the price of wood.

Take for example, the *Little Miami, Xenia and Columbus, Cincinnati and Marietta and Wilmington-Zanesville and Hillsborough* lines. These make, together, 468 miles, and will consume 80,000 cords of wood, at the cost of \$240,000. Now these roads can, by the use of coal, save \$160,000 per annum, which is interest on *two and a half millions of dollars*. In the valley of the Ohio, two millions per annum might be saved by the use of coal, instead of wood, on railways.

It is in this manner that Stockholders are hereafter to make profits on their investment in railways; *by economy in the expenses*. The business of railways will be enormous; but, if the expenses of running trains are to increase also, the increase of business is of no avail. Under a rigid system of economy, with improved machinery, the *expenses* of running a railway, need not be more than 35 per cent. of its gross proceeds.

## RAILROAD LIBRARIES.

While at the East a few weeks ago, we saw at the office of J. V. L. PRUYN, Esq., Treasurer of the New York Central railroad, the basis of a complete railroad Library.—Mr. Pruyn, being at once Treasurer and Secretary of one of the most important and wealthy railroad corporations in the world, during the period of the transfer of its whole stock and the consolidation of its various interests, has had herculean labors to perform, and feeling the necessity of having within his immediate reach, books of reference of every character, began the collection of various works, which would be of service to himself or his assistants in the discharge of their duties. The collection of books of Law is nearly completed; the collection of miscellaneous works not so full. It is intended, however, to make this library one which shall be useful. It already contains many of the English publications as well as our own, and more have been ordered.

We trust this example will be followed by all the principal railroad corporations. A library comprising books of reference on matters of law, science, and polity, connected with railroads, must be of great advantage.—It is at least found so in other business, and analogy would lead us to suppose it would be so in this. And such, too, has been the experience on the road mentioned before. No intelligent officer will be without the written experience of others that is placed within his power. If he is, his own reputation and the interest of those for whom he acts, must suffer, inasmuch as no one person's experience, however well he may be fitted by nature, can be equal to the united experience of many under various and different circumstances.

But libraries for the use of higher officers are not *all* that is necessary. The mechanics, engineers, and operatives, would be materially benefitted by a well selected and complete library. And the roads would be amply repaid by the increased intelligence of its employees, and greater precision and facility with which its business would be conducted.

An investment of this kind, while it would be of small moment, so far as regards the finances of the company, would be of immense benefit in the improvement of its management and the safety of its operatives.

## CANAL ACROSS THE ISTHMUS OF SUEZ.

This grand project has been recently revived by gentlemen in Europe, who seem earnestly engaged to carry it out to its full extent.

The Journal of Commerce furnishes the following particulars: "The director of the new movement for a canal across the Isthmus of Suez, is a French gentleman—M. Lesseps—said to be connected with the family of Louis Napoleon. He has lately presented to the Viceroy of Egypt a memorial on the subject, setting forth the importance and feasibility of the work, and asking permission to form a company for its prosecution. The Viceroy, Mohammed-Said, on receiving this memorial referred the subject to the Sublime Porte, and having obtained its consent to the project, granted M. Lesseps power to form a company for constructing a canal across the Isthmus of Suez, of sufficient dimensions for the navigation of large vessels, with the construction also, of one or two ports as may be deemed most desirable. The charter of the company extends to ninety-nine years from the time of opening the canal, when it reverts to the government of Egypt, which shall enter upon the full possession of the canal, and enjoy all the rights and privileges of the company. All the work shall be executed at the exclusive expense of the company, to which, however, the government will make a donation of all the necessary lands not belonging to individuals, and shall receive fifteen per cent. of the nett income of the canal, the company seventy-five per cent., and the founders of the company ten per cent. The tariff of duties shall be agreed upon by the company and the Viceroy, and shall always be the same for all nations, no advantage being ever granted to any one of them."

"The estimated cost of the canal and harbor is \$6,500,000. This estimate was made some ten years since, by three distinguished engineers, who completed a survey, viz: M. Linant Bey, who for thirty years superintended the canal works of Egypt, Mr. Stephenson, of England, and M. Nagrelli, of Austria."

The distances that would be saved by this route are stated in the following table, pre-



pared by M. Cardier, a French Professor of Geology :

	By Canal.	By Atlantic.	Differ'e.
Constantinople, <i>Leagues</i> ..	1800	6100	4300
Malta,.....	2062	5800	3738
Trieste,.....	2310	5960	3650
Marseilles,.....	2374	5650	3276
Cadiz,.....	2324	6200	2976
Lisbon,.....	2500	5350	2850
Havre,.....	2824	5800	2976
London,.....	3100	5920	2820
St Petersburg,.....	3700	6520	2820
Liverpool,.....	3050	5900	2850
Bordeaux,.....	2800	5650	2850
Amsterdam,.....	3100	5950	2850
New York,.....	3761	6200	2439
New Orleans,.....	3721	6450	2729

#### SANDUSKY REGISTER'S COMPLAINT.

Every item of intelligence that could be raked and scraped in regard to the roads tending Cincinnati-wards is used ; but of the great project of the Sandusky and Louisville Road, not one word has it uttered for many a month, although the First Annual Report has long been made, showing the proposed thoroughfare to be moving to a sure accomplishment. Of course such silence harms not, but it goes to show with what spirit the *Record* is conducted. The statements in regard to the C. H. & D. R. R. will correct themselves ; and we think the worthy President of the road has taken more trouble than the case warranted in correcting the misstatements.—*Sandusky Register*.

This is a very unnecessary expenditure of temper. The worthy President of the *Cin., Ham. & Dayton R. R.* neither has, nor will attempt to correct any material statement, made in our review of that work. On the contrary, he proceeds to give *reasons* why the road cost in 1855, double what it was reported to have cost in October, 1852. The gist of the *Register's* complaint is, that we have not noticed that "great project of the Sandusky and Louisville Road." This is a grievous wrong, if we had only known anything of that "great project." But never having seen or heard of the "First Annual Report," the *Register* might perceive we could not know its contents. If new companies desire a notice, the least they can do, is to send us proper information.

#### WABASH AND ERIE CANAL.—OUTRAGES BY A MOB.

We regret to learn that a portion of the people residing near the Birch creek aqueduct and reservoir on this canal, have conceived so strong a prejudice against this work, that they have been led to commit the most wanton and unjustifiable outrages. A short time ago they cut away the bank of the reservoir, threatening vengeance on any who should attempt to repair, and went so far as to send a formal notice to the resident Trustee at Terre Haute to warn him that any attempt to repair the reservoir would be at the risk of the lives of the persons sent for that purpose. And accordingly, although armed laborers were sent to repair the damage, the building containing the tools of the workmen and the aqueduct itself were burned, the canal embankment cut away and various other lawless acts performed.

Governor Wright, in a proclamation in which he declares the canal and its reservoirs under state protection, thus enumerates the various outrages :

1. Destruction of Birch Creek Reservoir, June 22d, 1854.
2. Attempt to destroy waste-way of same, July 6, 1854 ;
3. Attempt to burn Eel River Dam, August, 1854 ;
4. Destruction of Birch Creek Reservoir, May 10th, 1855 ;
5. Warning off men sent to repair the same, May 31st, 1855 ;
6. Partial destruction of Aqueduct over Birch Creek, May 31st 1855 ;
7. Mobbing, lynching, and tearing down the house of a citizen, May 24th, 1855 ;
8. Burning of Shanties, destruction of property and turning of the inmates out of doors near the Reservoir, June 2d, 1855.

We had hoped that the period in which ignorance as deplorable as that which could lead to such acts as are here enumerated, in our country at least, had passed away. That an enlightened sentiment prevailed everywhere with regard to internal improvement and that no portion of our people at the present day failed to appreciate the privilege of having facilities for commerce, and regret to be compelled to admit that we were mistaken. We believe that these outrages were partly the result of a mistaken idea that the reservoir was the cause of sickness in its neighborhood. This, of course, is absurd, as it was not a reservoir of stagnant water, but one in which water was flowing and from which it was drawn. Whatever, however, was the cause of this misguided action, we trust the State government will take effectual means to disabuse their minds and secure the permanent safety of the works.

#### DEATH OF SAMUEL GREER.

We regret to observe in the *Jonesboro Journal*, the announcement of the death of SAM'L. GREER, Esq., senior editor of that paper.—Mr. Greer died on Wednesday, May 23.

The following is from the notice in the *Journal* :

About twelve months ago the deceased was stricken with Paralysis, since which time he has been gradually declining, until about three weeks since, when it was evident that his career was almost terminated. His mind sympathizing with the affliction of the body, failed, and for several days before his death, it was only at short intervals that he recognized his friends around him.

Mr. Greer was a native of Pennsylvania, and came at an early age to Jonesboro with his father, and has spent his life in this county. He has filled several public offices, was for years Justice of the Peace, having first been appointed by the Legislature and afterwards elected by the people, and in fact so familiar had he become with the Law, that it was almost a daily occurrence for some one to

consult him in relation to their difficulties and to take counsel as to the course to pursue in order to maintain their rights. He was for many years agent for the Bank of Tennessee, County Register and Clerk of the County Court. But it is not our intention to write either a biography or eulogy of the deceased, but simply to announce that he is no more. Whatever were his deeds good or evil, they are done ; and we trust that in his exit from this world he has been taken to realms of eternal bliss.

#### RATHER PLEASANT.

It has been said that misfortune is the test of friends, and general experience proves the assertion. Among the many pleasant instances of the good will of our friends and subscribers we subjoin the following letter from a gentleman in Sunbury Pennsylvania :

SUNBURY, Northumberland Co. Pa., June 7th, '55.

PUBLISHERS OF RAILROAD RECORD :

Gentlemen—Inclosed I send you \$5, it being the amount due for my subscription for the present volume of the *Record* and partly in advance for the next volume.

I was sorry to learn of your late disaster by fire, but hope you are not discouraged. I like your paper, and hope to see it prosper.

Respectfully yours.

\* \* \* \*

#### TERRE HAUTE AND ALTON RAILROAD.

At a meeting of the Stockholders at Alton, June 4th, 1855, the following gentlemen were elected Directors of this road for the ensuing year :

Simeon Ryder,	Alton, Ill.
Robert Smith,	" "
Charles Cruft,	Terre Haute, Ind.
E. C. Litchfield,	N. Y. City.
E. B. Litchfield,	" "
Alvah Hunt,	" "
D. B. St. John,	Albany, N. Y.
John Stryker,	Rome, "
Henry Martin,	Buffalo, "
Thomas Allen,	St. Louis, Mo.
Hiram Sandford,	Paris, Ill.
P. L. Huggins,	Bunker Hill, Ill.
J. W. Moulton,	Shelbyville, "

From a gentleman who accompanied the Directors in an excursion over the entire line of this road, we learn that the iron is laid and the road open to Hillsboro, 50 miles from Alton, on the Western end. From thence to where the Illinois Central Railroad crosses to Galena, the road is graded and ready for the rails, 28 miles East of Hillsboro. On the Eastern end the iron is laid for a distance of fifty-eight miles ; but the road is only open to Ringtown, 44 miles from Terre Haute.

The entire line of road between Terre Haute and Alton, in length 173 miles, will be open about the 15th of September.



## Railroads.

### LONG ISLAND RAILROAD ANNUAL REPORT.

We extract from the Pennsylvania *Enquirer* the following abstract of the Report of this Company for the past year. "The Annual Report of the Long Island Railroad Co., which has just been published, shows the earnings of the road for the year ending 31st March last to have been :

From Passengers.....	\$193,238 64
" Freight.....	97,549 60
" Mails, etc.....	7,736 95
Total.....	\$303,579 19

which is an increase of \$55,964 over the previous year, and nearly double the receipts of 1850. The expenses of the year have been as follows :

Cost of operating road.....	\$180,513 73
Sinking Fund New York State Loan.....	1,000 00
Right of Way—Old Claim.....	40 00
Interest on Bonds.....	37,445 37
Rent of Brooklyn and Jamaica Railroad, Syosset Branch and Brooklyn Depot.....	37,721 72
Total.....	\$256,720 82

"Leaving as a surplus \$46,854 37." This has been used to create a contingent fund, by the purchase of \$53,000 of their mortgage bonds at a cost of \$35,898 75. The Company have added to their equipment to the amount of \$16,769, and also their depot grounds and buildings in Brooklyn to the amount of \$10,240, of which \$5,240 have been paid in cash. Additional machinery and rolling stock will be required during the ensuing year. The funds to meet that part of the above expenditure beyond the balance of net earnings have been derived from the issue of \$27,900 of their bonds which had remained unsold.

"The amount of the sinking-fund on the 1st of January last for the liquidation of the \$100,000 State loan, was \$17,249 45.

"The length of line owned by the Company, including the Hempstead branch of 2½ miles, is 86½ miles. The leased lines are: the Brooklyn and Jamaica, 11 miles, and the Syosset branch, 4 miles. The total distance operated and to be kept in repair by the Company is consequently 101½ miles. The Brooklyn and Jamaica road is leased till 1870, at an annual rent of 11 per cent, of the gross earnings of the whole road; provided the same shall not be less in any one year than \$21,000, or more than \$33,000."

The liabilities of the Company are as follows :

Stock—60,000 shares at \$50.....	\$3,000,000 00
Loan of 1850—due in 1870.....	500,000 00
Balance of State Loan.....	82,759 55
Morris Canal Loan, with interest.....	34,381 86
Hempstead Branch Loan, Bonds.....	300 00
Interest Coupons not called for.....	675 00
Old Claims partly due, never presented..	24,004 08
Sundry accounts, due in April.....	4,523 89
Total.....	\$3,646,795 38

The nett revenue of the Road, \$46,854 37, will thus be seen to be a little less than 1½ per cent. on the liabilities of the Company, or about 1½ per cent. on the capital stock.

### MEMPHIS, CLARKSVILLE & LOUISVILLE R. R.

The following summary of the general position of this road and its connections, we find in the *Clarksville Jeffersonian* :

"It was announced a few weeks since, that the President of our Railroad Company had succeeded in effecting an arrangement for the consolidation of our road with the Memphis and Ohio road, on terms mutually beneficial to both companies.

"Since this announcement the engineers have finished the locating survey and reported their estimate of cost, and the gratifying assurance is given to the public, *that the company has the means for building the road without issuing a Bond or incurring a debt*—a state of affairs without a parallel in the history of railroads in this country. In addition to these gratifying facts we have assurance from both private and public sources that the prospects of the Louisville & Nashville road, (the weak link in the connection from Louisville to Memphis *via* Clarksville,) are brighter now than they ever have been. The vital importance of a speedy southern connection has at last been forced home to the business mind of Louisville, and she has also realized the folly of attempting to build two rival roads before she has shown her ability to build one, and she is now preparing to concentrate all her energy and means upon the Louisville and Nashville road, to build it at least as far as Bowling Green, looking to a connection with Memphis *via* Clarksville. Advices from Nashville indicate that there is a growing disposition among her citizens to abandon the Nashville & Louisville railroad between Nashville and Bowling Green, and concentrate their means on the Nashville and Henderson road, looking to a connection with Louisville *via* the Logan County branch from Bowling Green. This is a most sensible idea, since by building the Nashville & Henderson R. R. to its intersection with our road at the State Line, she will secure all the connection (and but little less directly) which she is now seeking to make by building three roads, to wit: the N. & L., the N. & H., and the North Western."

### FORT WAYNE AND SOUTHERN RAILROAD.

We learn that the work on this road is still progressing, and that an *efficient* force is at work on the section from Jeffersonville to Vernon. It is also stated that the Ft. Wayne and Southern, and the Sandusky and New Albany Railroads have agreed upon a union track from Jeffersonville to Tripton, fifty miles.

The city of Jeffersonville has issued her bonds to the amount of \$200,000 to aid the enterprise, and Louisville has passed an ordinance to endorse the bonds of the road under the following conditions :

"As soon as the road is ready to receive

the iron between Jeffersonville and Charleston, the city to endorse bonds for \$100,000; between Charleston and Lexington, to endorse her bonds to the amount of \$124,000, from Lexington to Paris \$100,050, and from Paris to the Ohio and Mississippi Railroad, \$88,000; provided that the road shall not cost over \$12,500 per mile, and that the bonds shall not be appropriated to any other purpose than the purchase of railroad iron."

The following from the New York *Herald* shows that the Company are paying the interest on their bonds already issued. "The coupons of the real estate and first mortgage bonds of the Fort Wayne and Southern Railroad Company will be paid on presentation, at the Office of the Ohio Life Insurance and Trust Co., in this city."

### LAKE SHORE R. R.—OPENING OF THE ROAD FROM CHICAGO TO MILWAUKEE.

The Lake Shore Railroad from Chicago to Milwaukee, was formally opened by excursion trains from the two termini and various cities on the line, on Saturday, May 19. The various parties comprising the mayors of Chicago and Milwaukee, the officers of the road, and the principal citizens interested, met at Kenosha. Here, with the American flag floating over the spot where the last two rails were waiting to be spiked down, the parties gathered round the spot. The two parallel rails were pointed out, the tools were made ready and Mayor Cross, of Milwaukee, addressed the delegations. We subjoin the opening portions of the address from the Milwaukee *Sentinel* :

MR. MAYOR, AND GENTLEMEN

*of the Common Council of the City of Chicago, and the Sister Cities along the Line of the Lake Shore Railroad.*

"Allow me to tender to you on this occasion, the salutation of the City of Milwaukee, which she sends greeting. The circumstances and causes which bring us together at this time and in this place, are of no ordinary moment to us all, and call for our hearty and cordial congratulations. At the request of the President and Directors of the Green Bay, Milwaukee and Chicago Railroad Company, we have come hither this morning to meet you in a common cause, for the purpose of formally uniting the cities of Chicago and Milwaukee and the sister cities along the line, by bands of iron—and at the same time unite the hearts of their citizens by bonds stronger than iron,—by the indissoluble bonds of social and commercial intercourse and friendship. The last rail forming the last link in the great chain that is hereafter to bind us to each other, it is reserved for us to place upon the ties, and to drive the last spike that shall hold it in its proper place upon the track. And may no ruthless hand ever attempt to break the chain which we this day weld and fasten



upon the chief cities of the two great states of the north-west." \* \* \* \* \*

After the speech, the last rail which was to bind together the communication between Milwaukee and Chicago, and to give the former an almost unbroken iron chain to the remote East, was spiked down with appropriate ceremony—Mayor Cross of Milwaukee, Mayor Boone of Chicago, W. B. Ogden and Peter Page of Chicago, and Charles K. Watkins, Esq., President of the Wisconsin end of the road, each taking a drive.

The track is represented as being in good order, with one or two exceptions, and the grades easy.

#### ALABAMA AND MISSISSIPPI RAILROAD.

At a meeting of the Stockholders of the Alabama and Mississippi Rivers Railroad, held on the 14th inst., the following gentlemen were elected Directors: Maj. James L. Price, Wm. T. Moore, J. W. Lapsley, R. H. Adams, J. R. John, T. B. Goldsby, John H. Davidson.

The affairs of this road are said to be in a good condition. Seventeen miles are in running order, and the other thirteen are nearly graded. It is said that at the meeting, steps were taken to negotiate for the purchase of iron enough to lay the track to Uniontown.

**MEMPHIS AND CHARLESTON RAILROAD.** BRIDGE OVER THE TENNESSEE.—The Decatur Journal, says that on May 24, the first train crossed the bridge on this road over the Tennessee river. The train was a construction train loaded with iron, cross ties etc., and the bridge stood the test well.

The road is already laid for  $2\frac{1}{2}$  or 3 miles beyond the river.

**MAYSVILLE AND LEXINGTON RAILROAD.**—At the annual meeting of the Stockholders of this Company, last week, a resolution was passed calling for an expression of opinion from the county Courts of the several counties which have stock in the road, and from the city Council of the city of Maysville, as to the policy recommended by that meeting, to wit: "A sale of the road under the mortgages heretofore executed by the Company, as absolutely necessary under the present aspect of its affairs, in order to secure a speedy completion of the road."

The city Council of our city met on Thursday night, and unhesitatingly determined to accord with the course recommended by the Company.

From a letter we have seen from Paris, although we have not heard definitely, we think it almost certain that the county Court of Bourbon will promptly and cheerfully acquiesce in the same recommendation, as the shortest and surest means to accomplish the completion of the road.

On Monday next, the county Court of this county will meet, and take the subject under consideration—and it is generally believed, will determine upon the same course of action.

#### BLOOMINGTON, KANKAKEE AND INDIANA STATE LINE RAILROAD.

The Southern terminus of this road is Bloomington, on the Illinois Central railroad, at the point where the Chicago branch diverges from the main line, and the northern terminus is Niles, on the Michigan Central railroad. Laporte, on the Northern Indiana and Southern Michigan railroad, is made also a point. At a meeting of citizens from Michigan, Indiana and Illinois, favorable to the construction of this road, held at Kankakee, on May 17, the following resolutions were adopted:

On motion of O. Beebe, Esq.,  
*Resolved*, That the stock of this railroad be divided into shares of fifty dollars each.

On motion of W. A. Chatfield, Esq.,  
*Resolved*, That Jesse W. Fell, Esq., A. Gridley, Esq., and W. F. M. Arney, Esq., of McLean county, be and are hereby authorized to open books in the counties of McLean and Livingston for the subscription of stock in the Bloomington, Kankakee and Indiana State Line railroad; and W. A. Chatfield, Esq., Orson Beebe, Esq., James M. Perry, Esq., and Noel Vesser, Esq., in Kankakee county, on the 4th day of July next; and that they keep said books open till the amount of stock required by the charter of said railroad shall be obtained.

*Resolved*, That the board of corporators adjourn to meet in the Sherman House, in the city of Chicago, on the 21st day of June, at 2 o'clock P. M.

#### INAUGURATION OF THE CALCUTTA RAILWAY.

This great event took place on the 3d of February, 1855. The line is now completed for 122 miles to the collieries at Raneegunge; but Burdwan, a town of importance, about 68 miles from Calcutta, was selected for the ceremonies of the day, in order to suit the convenience of all parties. Two trains were appointed to convey 600 passengers from Calcutta to that station. The terminus at Howrah, opposite Calcutta, was decorated for the occasion with great taste.

The train reached Burdwan in about three hours. The whole Government (the Governor-General excepted) was on board, and a bishop and bishop elect. It was important therefore, that the utmost care should be exerted to prevent accidents. At Burdwan the station was decorated in the most tasteful style, and a sumptuous entertainment was spread in a noble pavillion for 700 guests.

The enthusiasm of the natives along the line was boundless. The towns and villages poured forth their inhabitants by hundreds and thousands to witness the grand spectacle, and in many places, more especially where education had made progress, gave us the most hearty cheers.

Contracts have been made for the completion of more than six hundred miles from Burdwan to Cawnpore, and Mr. Stephenson is pushing forward the operations with all his characteristic energy, and is so sanguine as to expect that the works will be accomplished in three years. There can be no doubt that all the earthwork and masonry may be completed within that period; but four bridges have to be constructed as large as London Bridge, and one of them of a depth of 70 feet, and as it appears to the engineers desirable to

avoid the construction of temporary bridges, and to make those which are built permanent, there may be more delay than is at present anticipated.

Three thousand miles of telegraph have been completed during one year in the Presidency, and it is hoped to furnish one thousand miles of railway in three years. The value of the electric telegraph is likely to be fully shown during the approaching summer. The Governor-General, Lord Dalhousie, whose health is in a declining state, will pass the hot weather and the rains at Ootacamund.—The Foreign and Military Secretary will accompany him, and, thanks to Dr. O'Shaughnessy, he will be able to direct the affairs of India from his mountain eyrie with such facilities as no previous Governor-General has ever enjoyed. The electric telegraph has now been completed to the capital of each Presidency, and it passes through the Ootacamund. By this matchless instrument he will be in daily and hourly communication with all the subordinate governments, and will be able to issue his instructions to every part of the country, and before sunset to receive information of their having reached the most distant extremities of the empire. By the time he arrives at Ootacamund the telegraph will have been completed to Peshawur, and he will be enabled, though 2,000 miles distant, to regulate the negotiations with Dost Mahomed day by day.—*Times*.

**ELORA AND SAUGREEN ROAD.**—The whole of this line, through one of the most fertile portions of Upper Canada, is now contracted for, and, it is expected, will be practicable by the first of August. At Minto and nearly midway between Elora and Southampton, a village has been surveyed and laid out by Messrs. Allen and Geddes. This will prove at once a great benefit to the surrounding settlers, and valuable accommodation to emigrants proceeding upwards. The sale of lots takes place on the 13th day of June, and we doubt not, will be numerously attended. We conceive that the Government is entitled to great praise for the undertaking and carrying out of this work, and much of its success will be owing to the zeal and energy of the Superintendent, D. Gibson, Esq.—*Backwoodsman*.

**N. E. & S. W. ALABAMA RAILROAD.**—A correspondent of the Tuscaloosa Monitor, says that since its last issue, a letter from President Garland has been received, in which he states he had made and entered into a contract for the iron for our Railroad; the same to be manufactured on the line of the road. The details are not given, but it is plainly inferred, that a bonus is to be given to the contractors for the manufacture of the iron on the line of the road, the contractor then takes the amount of the iron in the stock of the company at par value. The contract only awaits the sanction of the Directors to make it binding, which it will, without doubt, receive at their next meeting in July.—*Chat. Adv.*, May 26.

#### INDIANAPOLIS AND CINCINNATI R. R.

The earnings of this road for the month of May, 1855, are as follows:

Passengers.....	\$16,435 72
Freight.....	13,302 22
Express and Mail.....	1,157 08
Total.....	\$30,895 02
For May, 1854.....	17,371 86
Increase.....	\$13,523 16
Being 78 per cent.	



**MILWAUKEE AND MISSISSIPPI R. R.**

The receipts upon this road are going up beyond all precedents, and all estimates thus far made. Up to and including the 25th, the receipts of May was as follows:

Passengers.....	\$16,534 32
Freight.....	31,895 94

Total.....\$47,430 26

The following shows the receipts for the six days ending with the 25th:

19th.....	\$2,513 44
21st.....	3,034 21
22d.....	2,613 34
23d.....	2,988 62
24th.....	3,270 60
25th.....	3,010 39

Total.....\$17,430 59

With the receipts from mail and express, and from the Watertown Road, the total for May will be about \$65,000. The receipts for May, 1854, were \$41,751 31.—*Milwaukee Sentinel.*

**COMMENCEMENT OF THE AIR LINE R. R.**

It is with no little gratification that we are at length permitted to announce that the first blow is soon to be struck on this great enterprise; the Directors having just contracted with Mr. Samuel Thompson, a man well and favorably known in this community, to grade, bridge, put in the culverts and furnish the ties,—in short to prepare the road bed for the iron rails,—over the section from the Illinois Central Railroad to Lacon, distant 20 miles, for the sum of \$125,000, of which he is to take \$25,000 in stock; the work to commence in June ensuing, and to progress as fast as the means and resources of the Company will permit. Mr. T. is now closing up a contract on the Pacific R. R. in Missouri, and will come on with about fifty hands, (by 10th of June) and sufficient fixtures, teams, etc., to work one hundred men. This, by all interested, will be regarded as good news.

As stated last week, the delay which attended the commencement of this work has not been without beneficial results; among others, we might add, the diminution in the price of iron since the original letting to Burt & Co. Then rails were \$80 to \$90 per ton—making the cost per mile about \$9,000; now they can be had for \$60 per ton—only \$6,000 per mile—one-third difference on the single article of iron. And it is believed from an accurate estimate that the road can now be built for \$16,000 per mile.—*Lacon Gazette.*

**Miscellaneous and Mechanical.****BRIDGES FOR RAILROADS.**

Our railroads have almost universally adopted the custom of building wooden bridges, mainly because of the supposed cheapness of the wooden structure, and rapidity with which it can be erected. Now nothing can be more pernicious in its effects, than this same custom. Wooden structures are liable to decay and destruction from a thousand causes that do not in the least affect an iron or stone structure. Within a few weeks past, three railroad bridges have been destroyed by fire, one on the Lake Shore railroad where it required nearly a month to erect even a temporary structure, one on the New York and Erie railroad, which cost \$20,000, and one at Stony Brook near Lowell. The loss and detention by these accidents can hardly be estimated, especially that on such a great national thoroughfare as the Lake Shore railroad.

Passengers and mails were carried around the gap, with only an hour or two's detention, but heavy articles of freight, locomotives destined for the West, etc., had to lay on the eastern side waiting for the completion of the new bridge. Such calamities are of too frequent occurrence, not to have impressed a lesson on the mind of every prudent and intelligent man.

A bridge for railroad purposes should be a something, which, when once erected, will defy the ordinary power of the elements—which decay cannot attack and which fire cannot burn. And such a structure cannot be made of wood.

Stone structures also, are not the best for railroad purposes, especially where the span is great and the earth filling over the arch is not deep. The surging of the locomotive seems gradually to destroy the crystallization of the mortar, and thus weaken the arch; and the result is rents and fissures and the gradual destruction of the whole work.

Iron bridges, however, are made of one of the most tenacious materials in nature, and, withal, possess considerable elasticity, which peculiarly fits them for railroad purposes.—The question then to be solved is, what form to adopt in order to secure the greatest strength consistent with the least consumption of material and the greatest cheapness of erection. Experience, we conceive, will go far towards the solution of the problem. The arch has been found hitherto the most substantial and economical form, and we conceive that experience will hereafter prove that tubular wrought iron arches are the best form for railroad bridges. Such bridges comprise all the elements of great strength, lightness and stiffness, together with facility and ease of construction. But the objection that is invariably raised is cost. Now what economy, we ask, is there in putting up structures which from their very nature require renewing every ten or twenty years at the very longest, and which accident may destroy at any moment. Even were iron structures to cost three times the amount that wooden ones do, it would plainly be wise to erect the iron ones in the outset. But such is not the case. An iron bridge, made of the proper material and in the proper manner need not cost more than one third more than a suitable wooden structure of equal comparative strength, we say comparative because the strength of a wooden structure is only comparative when measured by that of an iron one. A few more such experiences as the past six weeks, will prove to the satisfaction of the parties who are now suffering from this cause, what true wisdom in bridge building is. But we would like to have our companies who have not yet suffered extensively, take time by the forelock, and as their wooden bridges decay, replace them with substantial iron structures.

**STEAM GAUGES.**

The advantage of a Steam Gauge attached to a boiler, are so apparent, that we hardly need make an argument for the benefit of practical mechanics; but directors and presidents are rarely practical machinists. A moment's reflection, however, will show the business man that no boiler should be without one. Suppose that a pressure of eighty pounds of steam is sufficient to do the work of a stationary or locomotive engine, it is quite evident that the engineer will endeavor to keep his steam fully up to this pressure and that if a mistake is made, it will be rather on the side of too much steam, than too little. Now it is an exceedingly difficult matter to judge of the exact pressure of steam by the sound of the escape at the safety valve or water gauge cock; and it is not to be wondered at, if the engineer, during nine tenths of the time, has his steam up to a pressure of 150 lbs., in place of 80. The additional fuel necessary to raise it to this height, is all waste, and by proper contrivance could be saved.

Again, the steam being too high, the door of the furnace is opened, and as without a gauge, it is all guess work, the engineer does not exactly guess right the proper time to close it, and before he is aware his steam is down to 40 lbs., and his engine either doing half work or completely at a stand. Now the steam gauge by indicating at every moment the exact pressure in the boiler, gives the engineer a means of controlling the performance of the engine with great precision, and thus of doing his work with greater regularity and less consumption of fuel.

There are in use, two different styles of steam gauges, the *Spring gauge* and the *Mercurial gauge*. The Spring gauge is objectionable, from the fact that the steel of which the spring is formed is affected by heat and use. Both these causes render it liable to derangement and loss of elasticity, it is therefore not reliable. The Mercurial Gauge depending for its action on the pressure of a column of mercury on a confined column of air, is free from these obligations, and is therefore the more reliable instrument. It is to be hoped that our roads will adopt the plan of furnishing a steam gauge for every engine. No locomotive should be without one.

**CAPILLARY ATTRACTION OF THE SOIL.**

From numerous observations which have been made at different times on the peculiar appearance of the surface of soils, clays, etc., during the warm summer months, and the fact that they, when covered with boards, stones, or other materials, so as to prevent them from supporting vegetation, become in a comparatively short time, much more productive than the adjacent uncovered soil, led to the belief that the soil possessed some power within itself, aside from the roots of plants, of elevating soluble materials from deep sources to the surface.



Dr. Alexander H. Stevens, of New York, was, I think, the first to suggest this idea. He speaks of it in his address delivered before the State Agricultural Society of N. Y., on the *Food of Plants*, in January, 1848. No accurate experiments were performed, however, to fix it with a degree of certainty, till those made which appear in this paper.

To throw some light upon the subject, in May, 1852, I sunk three boxes into the soil—one 40 inches deep, another 28 inches deep, and a third 14 inches deep. All three of the boxes were 16 inches square. I then placed in the bottom of each box three pounds of sulphate of magnesia. The soil was to be placed in the boxes above the sulphate of magnesia, was then thoroughly mixed, so as to be uniform throughout. The boxes were then filled with it. This was done on the 25th of May, 1852. After the boxes were filled, a sample of the soil was taken from each box, and the per centage of magnesia which it contained accurately determined. On the 28th of June, another sample of surface soil was taken from each box, and the per centage of magnesia carefully obtained as before. The result in each case pointed out clearly a marked increase of magnesia.

On the 17th of July, a sample of the surface soil was taken for the third time from each box, and carefully examined for the magnesia. Its per centage was found to be very perceptibly greater than on the 28th of the preceding month. On the 15th of the months of August and September following, similar examinations severally were made, with the same evident gradual increase of the magnesia in the surface soil.

The following are the results as obtained :

	Box 40	Box 28	Box 16
	in. high	in. high	in. high
Per centage of Magnesia, May 25	0.18	0.18	0.18
" June 28	0.55	0.30	0.32
" July 17	0.52	0.46	0.47
" Aug. 15	0.47	0.53	0.54
" Sept. 15	0.51	0.58	0.61

Before the middle of October, when it was intended to make another observation, the fall rains and frosts had commenced; on this account the observations were discontinued. The elevation of the magnesia, as shown in the above experiments, evidently depends upon a well-known and quite universal property of matter, viz:—the attraction of solids for liquids, or what is commonly denominated capillary attraction, or the property which most liquids have to rise in tubes, or between plane and covered surfaces. This may be clearly illustrated by taking a series of small capillary glass tubes and insert one extremity of them in a solution of sulphate of magnesia, or chloride of ammonium, and break or cut off the upper extremity just below the height to which the solution rises. Expose them to the sun's rays. The water of the solution evaporates, and the fixed sulphate of magnesia will be deposited just on the upper extremity of the tube.

As the solution evaporates, more rises up from below, keeping the tubes constantly full. Yet no sulphate of magnesia passes off; it all or nearly all remains at, or rises just above the evaporating surface. Just so in the soil; as the water evaporates from the surface, more water pregnant with soluble materials from below, rises up to supply its place; as this evaporation goes on, it leaves the fixed materials behind in the surface soil at the several points of evaporation.

This explains why we often find during the months of July, August and September, a

crest of soluble salts covering the surface of clay deposits which are highly impregnated with the alkalis or any of the soluble compounds of the metals, earth, or alkaline earths. Also, the reason, in many instances, of the incrustations upon rocks that are porous and contain soluble materials. It also helps to explain the reason why manures when applied for a short or longer time upon the surface of soils, penetrate to so slight a depth. Every agriculturist is acquainted with the fact that the soil directly under his barn-yard, two feet below the surface, (that is any soil of any ordinary fineness,) is quite as poor as that covered with boards or otherwise, two feet below the surface, in his meadow; the former having been for years directly under a manure heap, while the latter perhaps has never had barn-yard manure within many rods of it.

The former has really been sending its soluble materials to the surface soil, the latter to the surface soil and the vegetation grown near; or upon it, if uncovered.

The capillary attraction must vary very much in different soils; that is, some have the power of elevating soluble materials to the surface from much deeper sources than others. The pores or interstices in the soil correspond to capillary tubes. The less the diameter of the pores or tubes, the higher the materials are elevated. Hence one very important consideration to the agriculturist, when he wishes nature to aid him in keeping his soil fertile—is to secure soil in a fine state of mechanical division and of a high retentive nature. Nothing is more common than to see certain soils retain their fertility with annual addition of much less manure than certain others. In fact, a given quantity of manure on the former, will seem to maintain their fertility for several years, while a similar addition to the latter quite loses its good effects in a single season. The former soils have invariably the rocks, minerals, etc., which compose them, in a fine state of division; while the latter have their particles more or less sandy and coarse.—S. M. SALISBURY, M. D., in *Prærie Farmer*.

#### LEXINGTON & BIG SANDY RAILROAD—ITS COAL BEDS.

Along the line of the Lexington and Big Sandy Railroad, the coal formation occupies the caps of the hills south of the White Sulphur Springs, and on the Licking River and Triplett's creek, Christy's fork of Triplett and the waters of Tygert. The coal beds that are deemed worthy of extensive working, are on the waters of the Little and the East forks of Big Sandy and on the waters of Big Sandy. It was over these latter that our day's excursion led us. On William's Creek the coal beds are very abundant, and vary from five to seven feet in thickness. They are entirely accessible to mining operations, and the coal can be placed in cars at a nominal expense. Professor Mather, who made a geological survey of the country contiguous to the road, thinks that it is not an over estimate to suppose 5,000 tons of coal per acre can be easily mined on the land within a mile of the road, or 3,000,000 tons per square mile, for twenty miles on each side of the road, or 128,000,000 tons. This would afford transportation for 600,000 tons, or 18,000,000 bushels per year for 200 years, from within a mile of the road. It must, therefore, be evident, that the resources of the country along the railroad line in Carter and Greenup counties are inexhaustible, and will furnish for

ages much of the fuel necessary for the consumption of Interior Kentucky and the Ohio Valley.

Dr. Owen, the State Geologist, during the month of December made an examination of this coal region. The following is the analysis of a specimen from the mines at Ashland in sight of the Ohio river, and that may be regarded as scarcely equal to the coal found further in the interior :

Main Ashland, 3 to 4 feet thick; specimen taken from below the clay parting.	
Specific Gravity	1.325
Total volatile matter	44.1
Coke	55.9
Total	100.0
Moisture	7.0
Volatile gasses and bitumen, etc.	37.1
Fixed carbon in coke	51.4
Ashes (reddish grey)	4.5

Total.....100.0  
This coal has 0.65 per cent. less ashes than the Voughany coal, and only 15 per cent. less fixed carbon; while it has four per cent. less ashes, and two per cent. more fixed carbon in the coke than the Newcast coal, analysed by Johnson.

As a medium of introducing these now hidden resources into market, the Lexington and Big Sandy Railroad will serve its great purpose. By this road, coal can be transported to Ashland, then placed in boats and transported to Louisville, costing the wholesale purchaser in our city not over 6½ cents. How effectually it will serve to cheapen the fuel consumed by our inhabitants must be instantly apparent. There is another feature in the case equally interesting and important to consumers along the Ohio river. Restricted navigation owing to low water during the summer and fall, has heretofore, as is well known proven the most serious obstacle to the transportation of coal, and consequently caused the high rates at which it has been held.

The difficulty will be mainly obviated when the Greenup and Carter mines are in full operation. The river at Ashland is very deep; indeed, one of the finest harbors on the Ohio is to be found in front of that town. Below there but few sand bars, or other hindrances to coal boat navigation. It is beyond Ashland that these almost insuperable barriers in the channel are found. Beside it frequently occurs that there are freshets and floods in the Kannawa, Guyandotte and Big Sandy rivers, that afford sufficient water in the Ohio to float coal boats from Ashland, when the river at Pittsburgh is comparatively dry.

The cheapness of the article and its greater accessibility to our market must, therefore, render the coal resources along the line of the Lexington and Big Sandy Railroad of infinite value to Louisville and other southern markets. To the interior of the State the railroad will prove of still greater value, lessening the price of their coal fuel fully one-half.

The above are the facts in the case as are well attested by the examination of those eminent geologists, Prof. Mather, and Dr. Owen. In developing other resources, iron, building stone, sand for flint glass, fire clay, lumber, etc., the railroad will prove of inestimable utility. Already, though merely in process of constructing, it has caused wonders. Wild land along its route has, within two years, increased from fifty cents and one dollar per acre to ten dollars and over. In one year the taxable wealth of Greenup county has increased a half million of dollars, and that of Carter county over three hundred thousand dollars. Time alone can unfold the illimitable treasures of these two counties. They are now beyond computation.



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D. ASK'D.	SHARES.	OFF'D.	ASK'D.
Alabama and Tennessee	1st mortgage, convertible in 1872	7 1872				
Baltimore and Ohio	Transferable. Taxed.	6 1885	79%	100	44	44
Do do	Coupons. Not Taxed.	6 1875				
Do do	" "	6 1880				
Do do	" "	7 1860				
Do do	" "	6 1885				
Bellefontaine and Indiana	1st mortgage, convertible.	6 1866	98	50	42	
Buffalo and Penn. State Line	1st mortgage, not convertible.	6 1866				
Chicago and Rock Island	1st mortgage, convertible.	7 1870	98 99	66	89	
Chicago and Mississippi	1st " "	7 1862				
Do do	2d " "	7 1874	65			
Chicago and Aurora	1st " "	7 1866				
Cincinnati, Newcastle and Mich.	Real Estate.					
Cleveland, Columbus, and Cincinnati	1st mortgage, convertible.	7 1859		100	107	108
Do do do	No mortgage, convertible.	7 1855				
Cleveland and Mahoning						
Cleveland, Painesville, and Ashtabula	1st mortgage.	7 1861		100		
Do do do	2d " not convertible.	7 1861				
Cleveland and Pittsburgh	1st " convertible.	7 1860			40	41
	1st " 2d sec. convertible.	7 1873				
Cleveland and Toledo	1st mort. not conv. '73.	7 1863	74% 76	50	81 1/2	82
Cleveland, Zanesville, and Cincinnati						
Cincinnati, Hamilton and Dayton	1st mortgage " till 1855.	7 1867		70	73	
Do do do	2d mortgage.	7 1868	84 85			
Cincinnati, New Castle and Michigan	1st mortgage, real estate, conv.	10 5 & 10 y's	27 30			
Cincinnati Western		8	44 1/2	15	15	
Cincinnati, Wilmington and Zanesville	2d " "	7	67 1/2 68	40	45	
Cincinnati, Indianapolis and Chicago						
Cincinnati and Chicago	Real Estate.	8 1859	40	12	15	
Columbus, Piqua and Indiana	1st mortgage, convertible.	7 1862	75 76			
Do do do	2d " "	7	60 61			
Columbus and Xenia	1st mortgage, convertible.	7 1859	80	93 1/2	100	
Covington and Lexington	2d " " till 1862.	7 1863	60 65	50	18 1/2	25
Do do	Income.	10	72 75	50		
Dayton and Michigan	1st " "	7 1867		50	20	22
Dayton and Western	1st " "	7 1862				
Dayton, Xenia and Belpre	1st " "	7 1864	26 30			
Eaton and Hamilton	1st mortgage.	7 1862	60	25	30	32
Erie and Kalamazoo	1st mort. guaranty Mich. S. R. R.	7 1862				
Evansville and Crawfordsville	1st mortgage	7	80 81			
Port Wayne and Southern				12 1/2	14	
Franklin and Warren						
Galena and Chicago Union	Pledge of second section, convertible.	10 1853-6	92 1/2	100	100	100
Hillsboro and Cincinnati	1st mort.	7	55 60	50	20	25
Illinois Central	1st mortgage, not convertible.	6 1875	79 1/2 80	100	95	100
Do do	Freeland.	7	75 76			
Indiana Central	1st mortgage, convertible.	7 1866	63 1/2 75	50	45	50
Do do		10 1857	80	50		
Indianapolis and Bellefontaine	1st " "	7 1860-1	75	25	50	50
Indianapolis and Cincinnati	2d mortgage.	7	80 82	50	57	60
Indianapolis and Lafayette		7 1861		50		
Jeffersonville	1st " not	7 1861			76	
Junction (Ohio)	1st " "	7 1867		50	15	17
Do Indiana	Real Estate.	10	72 73		12 1/2	
La Crosse and Milwaukee		8 1864	77 82	100		
Little Miami	1st mortgage, not convertible.	6 1863		50	100	101
Do do	" " till 1855.	7 1861				
Louisville and Nashville	" unconvertible.	8 1858	93 1/2	100		
Lyons', Iowa, Central	1st mortgage, convertible.	7 1873				
Mad River and Lake Erie	1st mortgage, convertible till 1855.	7 1853-6	75	50	30	32
Do do	2d " "	7 1866	76			
Do do	Dividend.	7 1860	75			
Madison and Indianapolis	1st mortgage, convertible after 1853.	6 1861		50		
Marietta and Cincinnati	Domestic Bonds.	7 1868	57 1/2 60	50	27 1/2	30
Do do	2d " "			50		
Hillsboro and Cincinnati	1st " "					
Maysville and Big Sandy				50		
Maysville and Lexington	1st mortgage, convertible.	6 1873				
Memphis and Charleston	No mortgage, convertible.	8 1860	97	90	91	
Michigan Central	" " "	8 1855-6				
Do do	" " "	8 1857-8				
Michigan Southern	1st " " "	7 1860-90	100	103 1/2	105	
Milwaukee and Mississippi	1st " " "	8 1862				
Mobile and Ohio	1st mortgage 6s. 1884					
Nashville and Chattanooga						
New Albany and Salem	mortgage on 1st section.	10 1858-62		50	15	20
Do do	1st " on other section, convert.	8 1864-75				
New Castle and Richmond	1st " convertible.	6 1873				
New York Central		7	103 1/2 104			
New York and Erie	1st mortgage, not convertible.	7 1867		100	94	96
Do do	2d " convertible.	7 1871	93 1/2 95	48	50 1/2	
Do do		7 1883	94 1/2 95			
Northern Cross, Ill.	1st mortgage, convertible.	8 1873				
Northern Indiana	1st " not convertible.	7 1861	79		97	98
Do do	1st " Goshen line.	1868	90 91			
Do do	Construction Bonds.					
Ohio Central	1st mortgage, convertible.	7 1861	61	40	41	
Ohio and Mississippi	2d " "	7 1860	67 1/2 60	50	20	25
Ohio and Indiana	1st " "	7 1867				
Ohio and Pennsylvania		7 1865		50		
Do do	Income. No mortgage, convertible.	7 1872				
Pacific, Mo.						
Panama	1st mortgage, convertible.	7 1866	101 1/2 105		101	101
Parkersburgh (or Northwestern Va.)	" Guar. City of Baltimore.	7 1873				
Pennsylvania	1st mortgage, convertible till 1860.	6 1880		50	43 1/2	40
Peru and Indianapolis	1st " "	7		25	22	25
Rock River Valley Union	1st " "	7 1872		50		
Sandusky and Mansfield	1st " "	7 1860				
Do do	2d " "	10 1853-7				
Scioto and Hocking Valley	1st " income.	7 1861	50 51	50	50	51
Southwestern, Tennessee						
Springfield and Columbus						
Stuebenville and Indiana	1st mortgage, convertible.	7 1865				
Terre Haute and Alton	1st " "	8 1862-72	75 1/2			
Do do	2d " "	8 1865				
Terre Haute and Richmond	1st " "	6 1866				
Toledo, Norwalk and Cleveland	1st " "	7 1863	87 88	50		
Do do do	2d " "					
Do do do	Guar. of C. C. & C.	1883				



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## Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

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### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1853.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENNA. R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH P. A. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853; I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.,—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

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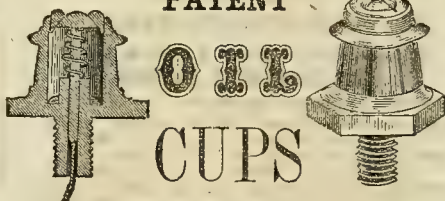
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DURAND, FULTON and TILTON.

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NOTICE TO CONTRACTORS.—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Obion (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburch and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

may 17-41.  
[Railroad Journal, please copy.]  
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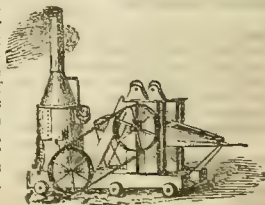
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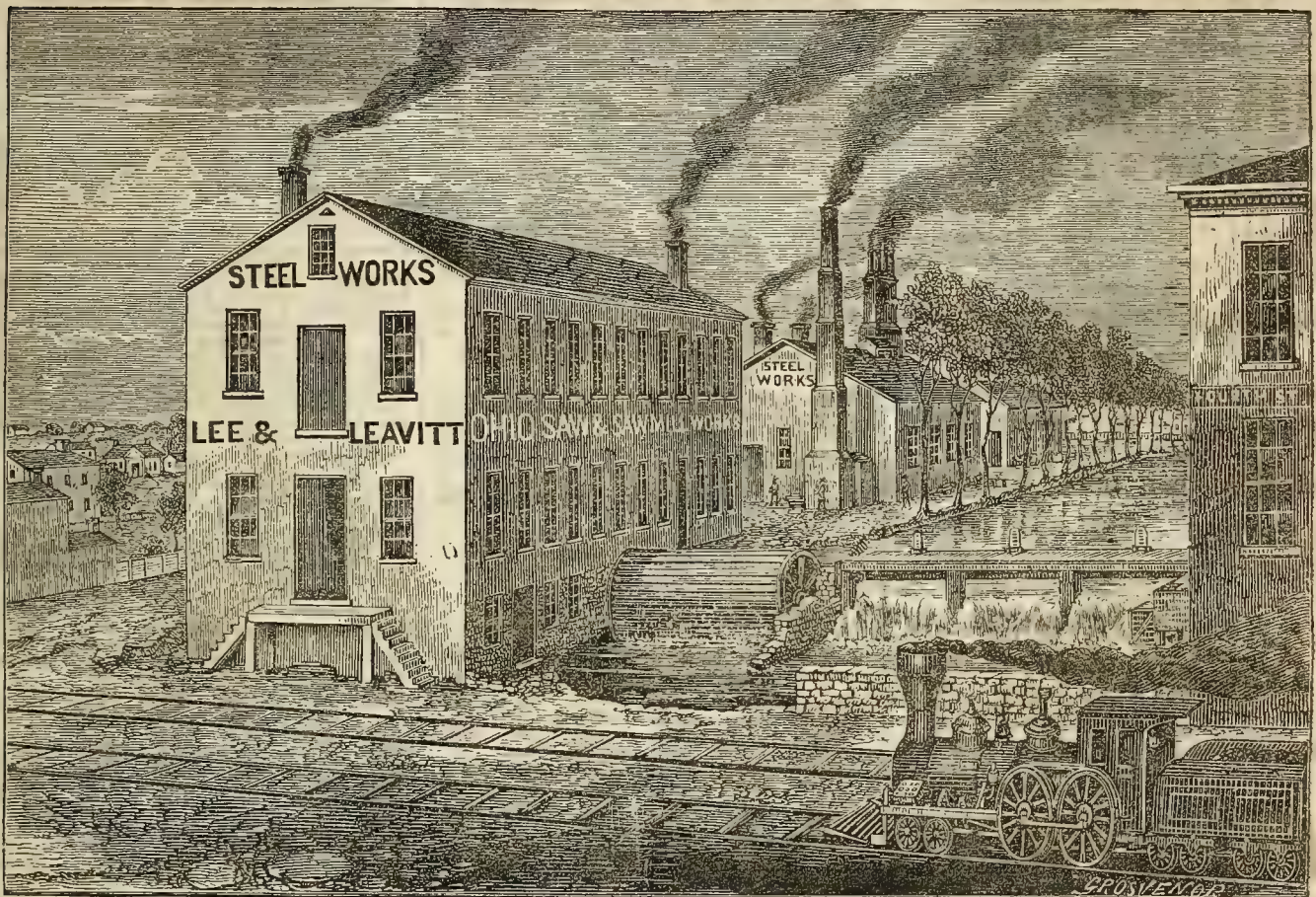
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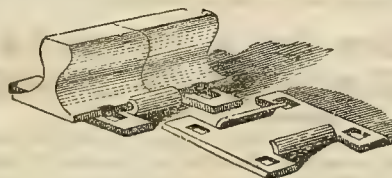
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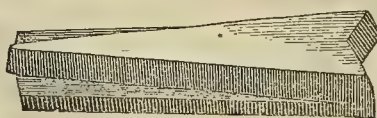
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**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Gauges**  
 of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

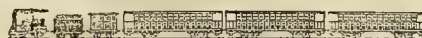
The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**Terre Haute & Richmond R. R.**



**Summer Arrangement.**

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**  
 Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A.M., arrives at Terre Haute at 11.55 A.M., connecting with the 12.30 P. M., Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 22½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

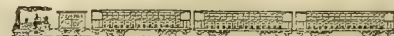
TERRE HAUTE TO INDIANAPOLIS.  
 MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855.

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, and Dayton**  
**RAILROAD.**



**SUMMER ARRANGEMENT.**

COMMENCING MONDAY, MAY 7th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**SECOND TRAIN.**

Indianapolis Express, at 6.05 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 12 M., for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.15 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Passengers by the 6 A. M. Lightning Express Train, go directly through to Cleveland without changing cars. Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the Office.

**WINTER ARRANGEMENT.**  
**SAFETY.—SPEED.—COMFORT.**

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena and**  
**Rock Island,**

BY THE WAY OF THE

**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in.....15 HOURS.

TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

**THROUGH BY DAYLIGHT TO TERRE HAUTE,**  
**LAFAYETTE, PERU, &c.**

Trains leave the Depot of the Cincinnati, Hamilton and Dayton Railroad as follows, viz:

First Train.—Lightning Express at 6 A. M.

Second Train.—Accommodation, at 2.15 P. M., connecting at Richmond with train for Hagerstown, New-castle, &c., &c.

Third Train.—Accommodation, at 5.20 P. M., for Richmond and intermediate points.

Returning, reach Cincinnati at 10 A. M. and 12 M. and 6 P. M.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

JOHN W. SHIPLEY, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

Feb. 8-ly

D. M. MORROW, Superintendent



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
**Through Tickets from all Parts of the West,**  
**ARE NOW SOLD IN**

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**

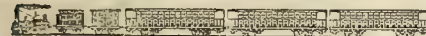
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.  
WM. G. HARRISON, President, JOHN H. DONE, Mast. of Transportation, Baltimore.  
je. 8t

**The Shortest, Quickest and Best**  
**ROUTE TO LOUISVILLE.**



MADISON, INDIANAPOLIS, PERU, TERRE HAUTE, MICHIGAN CITY, CHICAGO, GALENA, ST. LOUIS, AND NEW ORLEANS.

**OHIO & MISSISSIPPI RAILROAD,**  
ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER NOTICE, the Passenger Trains will run as follows:

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M. and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.**

**For Indianapolis.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.**

**For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M., 2.30 P. M., 4.05 P. M., and 9.30 P. M.

Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth Street, North side, four doors from Vine Street, opposite new Custom-house.

S. S. POST, Chf. Eng'r and Supt.  
Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.  
W. S. BABCOCK, Agent,  
Sept. 5. St. Louis and Cincinnati Omnibus Line.

1855. Winter Arrangement, 1855.  
**COMMENCING MONDAY, JAN. 29.**



**LITTLE MIAMI AND COLUMBUS, AND XENIA RAILROAD.**—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

**FROM CINCINNATI TO**

To New York in.....	32 1/2 hours.
To Philadelphia in.....	31 1/2 "
To Washington in.....	29 "
To Baltimore in.....	28 "
To Buffalo in.....	16 1/2 "
To Dunkirk in.....	15 "
To Cleveland in.....	9 1/2 "
To Sandusky in.....	8 1/2 "
To Pittsburgh in.....	14 "
To Wheeling, in.....	10 1/2 "

**FOUR DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburgh, and Wheeling Lightning Express at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

**SECOND TRAIN.**—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

**THIRD TRAIN.**—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Morrow.

**FOURTH TRAIN.**—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.  
Trains run by Columbus time—7 minutes faster than Cincinnati.

**FARE AND THROUGH TICKETS.**

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-box Landing, or at the Eastern (Little Miami) Depot, East Front street.

WM. H. CLEMENT, Superintendent.  
P. W. STRADER, General Agent

**OMNIBUS LINE.**

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12 05 and 6.55 p. m.

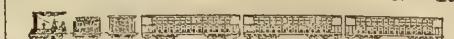
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-1f.

**PERU & INDIANAPOLIS R. R.**



**Peru, Logansport, Wabash, Rochester, and Indianapolis.**

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.  
Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

**OPEN** to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:  
Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fairmount, Cullerville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.  
J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices  
oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

**VIA LAWRENCEBURG.**

**IN** connection with the **Ohio and Mississippi Railroad.** Passenger Trains leave Cincinnati at 5 A. M., 7 A. M., and 2.30 P. M. Arrive at Indianapolis at 9 A. M., 11.45 A. M., and 7.45 P. M.

By Lightning Express Train, at 5 A. M., arrive at Indianapolis 9 P. M., Terre Haute 11.55 A. M., and Evansville, at 6 A. M., same day.

By Chicago Express Train, at 7 A. M., arrive at Indianapolis 11.45 A. M., Lafayette, 3 P. M., Mich. city 7.30 P. M., and Chicago, 9.50 P. M., same day, in time to connect with all through Western and Southern routes.

Office, foot of Main Street, corner of Water Street.  
SIDNEY RICE, Agent.  
Cincinnati, June 12, 1855.

**General Map Establishment,**  
**No. 3 College Hall, Walnut St., Cincinnati**

**E. MENDENHALL,**  
**MAP, BOOK & PRINT SELLER,**

Has constantly on hand  
GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers,  
Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES,  
**DRAWING INSTRUMENTS, &c.**

Publisher of the  
**Railway Map of the Western States,**  
In Sheet or in Pocket Case;

The LARGE SECTIONAL and RAILWAY MAP OF OHIO, the LARGE MAPS OF CINCINNATI, and HAMILTON CO., Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
**MAPS OF EVERY DESCRIPTION.**

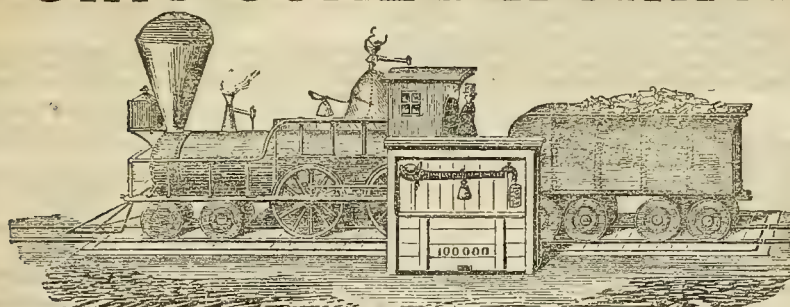


ISAAC RIGDON.

EDWARD C. RYLAND.

WM. HUDDART.

## OHIO SCALE WORKS.



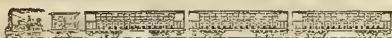
**Rigdon, Ryland & Co.,**  
Nos. 4 & 6 West Second street, between Main and Walnut sts.,  
CINCINNATI.

WE are now prepared to furnish **Railroad Track and Depot Scales** of all sizes, which we warrant in every respect equal to any manufactured in the United States. Being practical workmen ourselves, we feel confident that we can furnish the West and South with as good an article and cheaper than can be bought East. Cincinnati, June 29, 1854.

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.

LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNIS &amp; PECK,

Louisville, Ky.

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. C. CLOUGH,

South-western Car Works.

Madison, Indiana, May 11.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

LOCOMOTIVES OF SUPERIOR QUALITY.

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch  
Jan. 27. RICHARD NORRIS & SON.

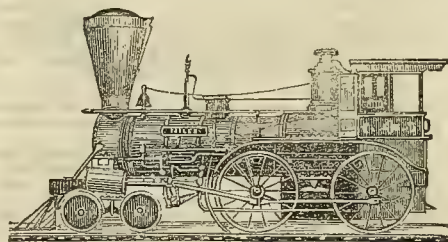
## NUGENT'S COLLEGE

OF  
**ENGINEERS & MECHANICS,**  
PUBLIC SQUARE, CLEVELAND, OHIO.

C. NUGENT, C. E., Principal.

THE design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
au.10.

## LOCOMOTIVE WORKS.



## NILES &amp; CO.,

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

## Lightner's Patent Axle Boxes for Railroad Cars

The attention of Railroad Managers and others is called to this valuable improvement in

## AXLE BOXES.

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs. ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEK BURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

## PROSSER'S PATENT

## Lap-Welded Iron Boiler Tubes.

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Awning Frames, Leaders, etc.

Brass Boiler Tubes.  
Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

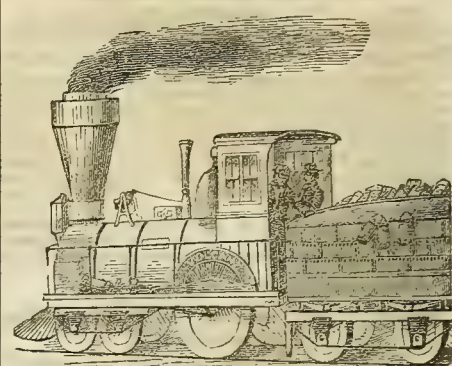
Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Tires, Platers' Rollers, etc.

P. S.—All Tools necessary for the construction or keeping in order Tubular Boilers.

THOS. PROSSER &amp; SON,

28 Platt Street, New York.

## Cincinnati Locomotive Works!



The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 MOORE & RICHARDSON.

## WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. &amp; F. Wason, Springfield, Massachusetts.

## Railroad Car Findings.

BRIDGES &amp; BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Bores, and Castings Fitted  
Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

## LOCOMOTIVE ENGINE LANTERNS,

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

## Cotton Duck for Car Covering,

Of any required width to 124 inches.

## ENAMELLED HEAD LININGS

Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trim-mings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport &amp; Bridges, Car Manufacturers.

Cambridgeport, Mass.

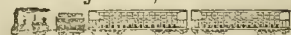
ALFRED BRIDGES,

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

toct

## CAR MANUFACTORY,

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops, are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan. 25+



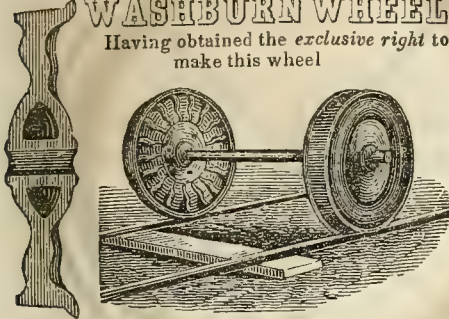
**FULTON CAR WORKS,**

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THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

**WASHBURN WHEEL**

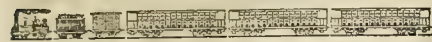
Having obtained the exclusive right to make this wheel



In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

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Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

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We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

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THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

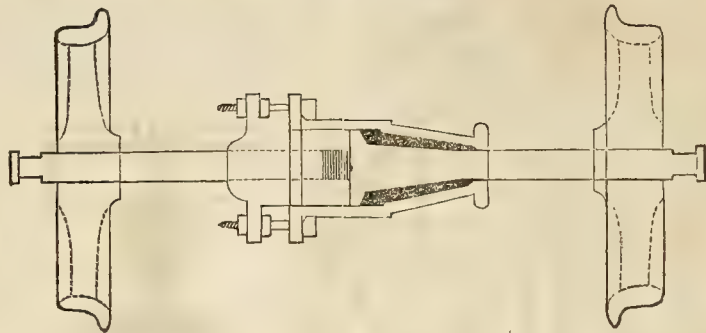
Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 167\* **JOSEPH DAVENPORT.**

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**DENNEY'S DIVIDED CAR AXLE.**

PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

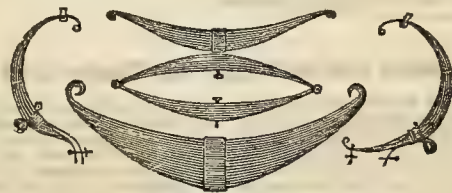
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

jy10†

**SAMUEL L. DENNEY,**  
Christiana, Pa.  
Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

**MCDANEL & HORNER,**

**LOCO- AND CAR**  
**MOTIVE SPRING**

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Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

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All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

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**PLATFORM SCALES.**

WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.  
HEWSON & HOLMES,  
53 and 85 Walnut Street.

**THOS. M. CASH,****PHILADELPHIA RAILWAY AGENCY.**

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

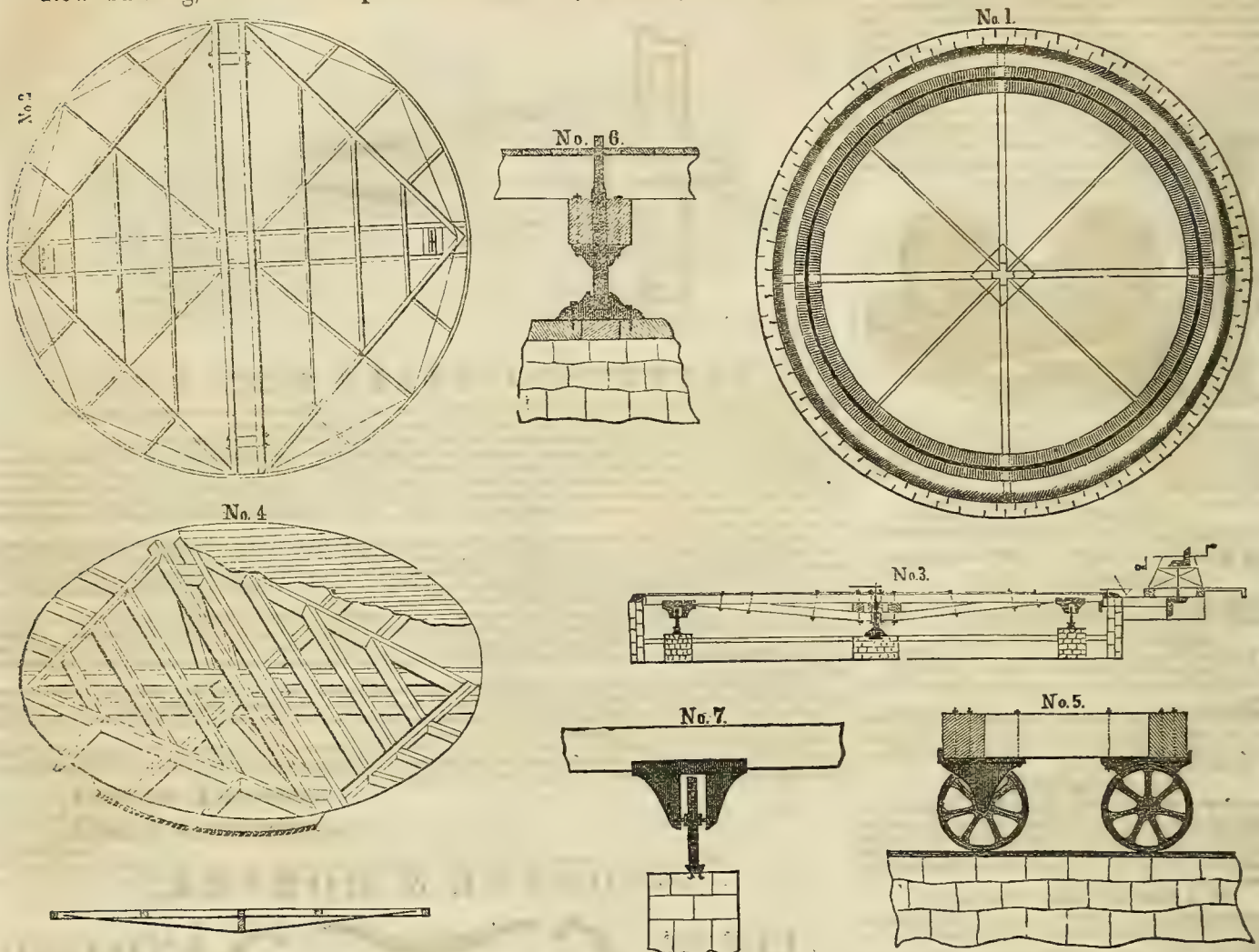
## REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,  
Wm. D. Lewis, Esq., Pres't Catawissa R. R. Co. "  
Charles H. Fisher, Esq., "  
Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C  
Pinckney Huger, Esq., Pres't. N. E. R. R. Co. "  
Oct. 13-1f.



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Now building, for 13 Principal Roads in Ohio, Indiana, New York, New Jersey and North Carolina.



This Table, together with an Engine and Tender of 30 Tons Weight, can be turned by One Man in 25 Seconds.

**R**AILROAD COMPANIES in want of *Turntables* of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction.

The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Supt and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.

Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.

Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Supt, Cleveland, Ohio.

Little Miami & Columbus & Xenia Railroads, William H. Clement, Supt, Cincinnati, Ohio.

Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.

Central Ohio Railroad, G. W. Fulton, Supt, and S. Medbury, Engineer, Zanesville, Ohio.

Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.

Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Supt, Marion, O.

Cleveland & Pittsburgh Railroad, J. Durand, Supt, Cleveland, Ohio.

Wilmington & Raleigh Railroad, North Carolina.

Central North Carolina Railroad.

Cincinnati & Indianapolis Railroad, Indiana.

New Albany & Salem Railroad, Indiana.

Michigan Central Railroad, Michigan.

Dayton, Xenia & Belpre Railroad, Ohio.

Pomeroy Railroad, Engineer at Cincinnati.

Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

**Fig. 1**, of the above cut, represents the foundations, consisting of *Bank and Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

**Fig. 2**, shows the framing.

**Fig. 3**, is a side view of Main Truss, with the mode of gearing, including the miter-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

**Fig. 4**, gives a perspective view of rim, segments, decking, etc.

**Fig. 5**, is an end view of the main trucks, with pedestals and wheels.

**Fig. 6**, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

**Fig. 7**, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

D. M. CARHART, Cleveland, Ohio.

## RAILROAD HOTEL.

CINCINNATI, O.

**THE GIBSON HOUSE**, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.

A. WETHERBEE, Proprietor.

## TO RAILROADS AND CONTRACTORS.

**Horse Powers.**—The undersigned being agents for the sale of R. H. Pease formerly Emery & Co.'s Horse Powers, are prepared to furnish them to order. They occupy little room and do their work effectually. T. WRIGHTSON & CO.

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No. 1, 2d STORY APOLLO BUILDING,  
CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments,  
Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING, JUNE 21, 1855.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

EUROPEAN AGENTS FOR THE RAILROAD RECORD.—Our European agents are Messrs. Algar & Street, of the London Provincial and Colonial Newspaper Advertisement Office.

No. 11 Clements Lane,  
London, England.

## Railroad Record

PUBLISHED EVERY THURSDAY MORNING,  
By T. WRIGHTSON & CO.

Office No. 167 Walnut Street,  
E. D. MANSFIELD, EDITOR.

J. A. JAMES, } ASSOCIATE EDITORS.  
W. WRIGHTSON, }

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Publishers, and Proprietors,

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ACKNOWLEDGEMENTS.—We are indebted to the officers of the Cleveland, Columbus and Cincinnati R. R. Co. for a set of their reports. Please accept our thanks.

VOL. III.—No. 17.

### COST OF FUEL ON RAILWAYS.

We have furnished in the two last numbers of the *Record*, some statistical facts in regard to the consumption of wood on railways. As we regard this matter as one of vital importance to railway economy, we shall add from time to time such information as may seem to elucidate the subject, and indicate the true course to be pursued. We have shown, heretofore, these facts:

1. That even in Ohio, a comparatively new state, all the wood within five miles of railways will be gone in less than fifty years. There will not be one stick left.

2. That if this be the result in fifty years, it is plain that wood will be scarce and very high in twenty years.

3. In the vicinity of the coal fields, (and this comprehends nearly all the Ohio Valley,) coal will not average in prime cost more than one-third the cost of the wood.

From this statement it is evident, that the railway-locomotives must use coal, and the sooner they begin, the better.

The progress of coal consumption is a curious part of our social history. Thirty years since, coal was scarcely known in dwelling houses. Twenty years since, it had just begun to be used in houses. Ten years since it was scarcely used in steamboats at all. It was looked upon as an impracticable thing for steamboats to use coal. Now all steamboats use it that can get it. The same thing will take place in regard to locomotives. They will be adapted to coal; and the saving being all added to the profits, will increase the dividends of the stockholders just so much.

To show what an enormous expense is incurred by the cost of fuel on railways, we subjoin the cost of fuel only on ten New York Railways:

Road.	Length.	Cost of Fuel.
N. Y. Central	533 miles	\$510,131
N. Y. & Erie	490 “	409,518
Hudson River	144 “	181,416
N. Y. & Harlem	130 “	129,341
N. Y. & N. Haven	61 “	115,430
Buffalo & N. York	91 “	26,291
Canandaigua & Elmira	68 “	19,219
Rensselaer & Saratoga	25½ “	21,692
Saratoga & Washington	47 “	19,893
Northern R. R.	118 “	28,230
Total	1,677½ “	\$1,461,161
Average per mile		\$ 800 00
Maximum per mile		1,800 00
Minimum “		300 00

If the cost per mile was \$50,000, then the cost of fuel is 1.6 per cent. on the capital; but if coal were used, it would be only 8 per cent., or one-half. The differences are very decided, and would tell on the value of the stock.

✂ The average cost of grading and masonry on nineteen railroads in New York, as reported in 1854, was \$12,778 49. Bridging \$1,171 98. Total cost \$36,763 45.

### UNITED STATES' SURVEYS OF RAILROAD ROUTES: ROUTE FROM FULTON TO THE PACIFIC.

By the courtesy of the War Department, and of Senator Wade, we have the Government Reports and Surveys of Railway routes to the Pacific. They embrace an immense amount of valuable information, and entirely aside, from the Railway plans, are worthy of being carefully examined, and preserved. The topographical maps are numerous and extensive. We shall refer to various classes of information, contained in them hereafter. At present, we shall present some of the topographical features of the country, on the route from Fulton, (Arkansas,) to the Gila.

#### FULTON TO THE RIO GRANDE.

From the Red River to the Rio Grande is 646 miles, on a line, near the 32d deg. parallel. In this distance, the fertile land extends to the head waters of the Colorado, a distance of near 400 miles. Indeed, travellers, who have sought to find the finest region of country, declare, that Northern Texas is the most fertile soil, and genial climate they have seen. The general levels, ascertained by the surveys are interesting, and are as follows:

Preston Red River	641 feet.
Upper Cross Timbers	1,782 “
West Fork of Trinity	1,524 “
Brazos River	1,700 “
Colorado	3,989 “
Llano Estacado	4,707 “
Pecos	4,070 “
Guadalupe Pass	5,717 “
Waco Pass	4,812 “
Rio Grand, el Molino	3,830 “

On this portion of the route, the topographical features of this route present no unusual difficulties, and many favorable circumstances. Supplies of building material can be obtained, and supplies of wood and water, without great expense.

#### FROM THE RIO GRANDE TO THE MOUTH OF THE GILA.

The distances on this route are:

Rio Grande to Rio Mimbres	71 miles.
Rio Mimbres to the San Pedro	152 “
San Pedro to Tuzan	53 “
Tuzan to the Gila	79 “

The great difficulty, in this part of the route is the want of water;—but, there is water enough, at each of these points, and, in the intermediate distances, water can be obtained, by the formation of tanks, which may be supplied with water from the little lakes, which are formed in the rainy season.

There is also a deficiency of fuel; but, this can be carried on the railway, from the points where it is abundant.

At the Gila river, the elevation is 1,365 ft. —being a descent of 2,475 feet, from the Rio Grande. At the mouth of the Rio Gila the level is 108 feet. The distance is 223 miles,—making a gentle grade of 5.6 feet per mile. From the mouth of the Gila to San Diego is about 150 miles,—the route is easy.

#### GENERAL CHARACTERISTICS.

The principal characteristics of this route



are the high, arid, smooth, and nearly horizontal table lands, which it traverses,—reaching an elevation of 4,000 feet on the dividing ridge, between the Brazos, and the Colorado. The mountain passes, however, are low, the climate mild, and the surface of the ground favorable to a Railroad.

FUEL in the end may be obtained from the coal mines. On the Brazos river coal is abundant, and may be got at \$1 per ton. At San Diego, the coal of Puget's Sound may be had, at \$8.00;—that is on the Brazos, at 4 cents per bushel, and at Diego for 32 cents. Averaging the whole line coal could probably be had for 15 cents per bushel, and this is, as cheap as wood, if it were abundant.

#### SUMMARY.

The distances, in whole, of this route are:

Fulton to Llano Estacado.....	499 miles.
Over Llano Estacado.....	125 "
Pecos to Rio Grande.....	163 "
Rio Grande to San Pedro on Pacific.....	831 "

Aggregate.....1,618

The estimate of cost from Fulton on the Red River to San Pedro, on the Pacific is, \$68,970,000, making an average cost of \$43,000 per mile.

Should a Railway be constructed on this route, it will be connected with the Central West thus:

From San Pedro to Fulton.....	1,618 miles.
Fulton to Cairo.....	400 "
Cairo to Cincinnati.....	250 "

Aggregate.....2,368 miles.

From Cincinnati to San Pedro this would be a very direct route, and one, in which the people of the Ohio Valley are as much interested, as any other.

It is impossible even to *guess* whether the general government, will ever put forth its strength, to accomplish a Railway to the Pacific. But if not, the splendid grants of Texas, may yet prove sufficient to accomplish that object. It is quite common to look upon enterprises of such magnitude, as merely the visionary schemes of the imagination. But, even imagination, is in our day, thrown into the shade by the vast realities of modern enterprise. Nothing is too great to be done, if the end will only justify the expenditure of means, on so great a scale. Whether it will, is a problem to be solved, by the intelligence of the commercial world.

#### WASTE OF POWER ON RAILROADS.

Even the most cursory observer who has traveled on our railroads, must have observed two things peculiar to the passenger business of all our roads. 1st, that every passenger likes to occupy from *two* to *four* times the room allotted to him in the original design of the road; and 2d, that the managers of the road gratify this disposition to a larger extent than is consistent with prudent economy. A train is rarely more than half full for any considerable portion of the way. We have been

told by conductors of experience, and who have taken the trouble to keep accurate records of these data, that passenger cars carry on an average but *twenty persons*. They are designed to carry *sixty*. We think we may then safely assert that the number of passenger cars employed on a train, after making due allowance for necessary waste of room, may in general be reduced one-third. Here, then, in the passenger business of our railroads, is a tremendous waste of power.

But it is our purpose to show, by figures, which none will dispute, the extent of this waste. On our best passenger roads the number of cars on a train will probably average from *four* to *six*. The weight of a passenger car is about ten tons, that of a locomotive from twenty to thirty, say twenty-five tons. The total weight of the cars of a passenger train will then stand as follows:

One Locomotive.....	25 tons.
" Baggage Car.....	10 "
Six Passenger Cars.....	60 "
Total.....	95 "

The weight of this train, if reduced to a size corresponding to the actual number of passengers, would be as follows:

One Locomotive.....	25 tons.
" Baggage Car.....	10 "
Four Passenger Cars.....	40 "
Total.....	75 "

A reduction of nearly *one-fourth* the weight of the whole train, and the passengers just as well accommodated, so far as actual ease is concerned.

What then would be the effect of this reduction of weight. Plainly one of two things, either the company could save in actual expenditures the cost of the additional fuel necessary to propel twenty tons and sixteen pairs of wheels, or if the company chose to expend the fuel, the passenger would gain in point of time from one-sixth to one-eighth of the whole time necessary to make the trip.

The total cost of passenger transportation in the State of New York on twenty railroads was \$1,585,479 74. Had these roads been worked on the economical plan of running just as many cars as could be moderately well filled and no more, we believe that between \$300,000 and \$400,000 of this expenditure could have been saved. Or if the same amount of fuel had been consumed, that, instead of making but thirty-six miles an hour on express trains, they would have run from forty to forty-two miles per hour.

Thus far we have said nothing of the wear and tear of machinery and the rails. It is plain that this is no small item. The weights of the respective trains would be as follows:

Six passenger cars, carrying thirty persons each.	
Each car.....	10 tons.
Thirty persons averaging 150 lbs. each..	2 "
Total of each car..	12 "
Six cars.....	72 "

Four cars, carrying forty-five persons each.

Each car.....	10 tons.
Forty-five passengers.....	3 "
Total of each car.....	13 "
Four cars.....	52 "

We have then in the one case seventy-two tons weight rolling on *forty-eight* pairs of wheels, and in the other fifty-two tons rolling on *thirty-two* pairs of wheels. The difference in wear and tear of cars and track is then certainly no *less* an item than the power necessary to move the burden.

We hope these remarks thrown out from a few observations made during a journey, will meet the attention of railroad superintendents. It is chiefly by economy that our roads must be enabled to divide larger sums of money, and pay their stockholders better for their investment.

#### GILLESPIE'S LAND SURVEYING.

We are indebted to the publishers, Messrs. D. Appleton & Co., New York, for a copy of this work. It is a book of 424 pages, and 40 pages of tables on colored paper.

The idea of the work was suggested by the wants of the author as Professor of this branch of study in Union College, at Schenectady.

It is at once a complete and simple work. The illustrations are well adapted to the purpose, and sufficiently numerous to meet the wants of the student. The subjects are treated in twelve parts:—General principles and operations, Chain surveying, Compass surveying, Transit and theodolite surveying, Triangular surveying, Trilinear surveying, Obstacles in Angular surveying, Plane-table surveying, Surveying without instruments, Mapping, Laying out and dividing up land, United States' public lands.

The work is for sale in this city by H. W. Derby.

NEW ADVERTISEMENTS.—Our readers will find among the new advertisements that of J. M. Brown, for Mercurial Steam Gauges. Geo. D. Winchell & Bro., patent pumps and pumping engines; and J. S. Brown, Washington, D. C., Catalogue of Patents.

CHANGE IN RUNNING ARRANGEMENTS.—Our readers will find some changes in the running arrangements of the Cincinnati, Hamilton and Dayton R. R., on the proper advertising page. This road is running a through train to Cleveland, and ticketing to any of the Eastern cities.

OHIO AND MISSISSIPPI RAILROAD.—The following gentlemen were elected Directors of the Ohio and Mississippi Railroad, at the Stockholder's meeting, in Cincinnati, on Monday, May 26: John Baker, Nathaniel Wright, Thomas Phillips, R. W. Keys, C. D. Coffin, Jethro Mitchell, Chas. W. West, Chas. Stetson, James C. Hall, Henry C. Lord, S. L. Barlow, Samuel Trevor, Larz Anderson, E. B. Reeder, G. W. Cochran, John Cobb, Thomas Goff, L. B. Parsons, M. W. Shields, A. T. Ellis, John Ross.



# Railroads.

## INDIANA AND ILLINOIS CENTRAL R. R.

We are in receipt of the Second Annual Report of this company. The meeting of the stockholders and election of officers took place on May 2d. The following gentlemen were elected on the Board of Directors for the ensuing year:

A. L. Roache, M. G. Bright, E. Clark, Charles M. Culbertson, John G. Davis, James Johnston, William Martin, O. Bailey, Henry Prather, W. D. Watson, Robert Hopkins and Wm. H. Crain. The six gentlemen first named, reside in Indiana; the others in Illinois.

The new Board elected the following officers: A. L. Roache, President; Wm. Martin, Vice President; John S. Spann, Secretary and Treasurer; J. A. Liston Attorney; John C. Campbell, Chief Engineer.

The Indiana and Illinois Central Railroad, as its name indicates, passes through the centre of both these states, from east to west, connecting their capitals by the shortest practicable route. Its eastern terminus is at Indianapolis and its western at Decatur, from which place the Great Western Railroad is already in operation through Springfield to Naples on the Illinois river.

The report after speaking of the eastern and western connections of the road which will be seen by a glance at the map, proceeds to say:

"Every railroad must depend for its profitable business, mainly on the local resources of the country it traverses. These consist of its population, surplus agricultural productions, minerals, timber, tributary connections, etc.

"In respect to all these, the statistics of our line challenge comparison with those of the most successful roads in the west.

"From Indianapolis to a point a few miles west of the Wabash, the country abounds in valuable timber. Shortly after crossing the Wabash, it enters upon the Grand Prairie of Illinois, which is only interrupted by groves, at the streams, two or three miles in width.

"The prairie portion of the route, although equal in capacity for production to any region in the west, is sparsely populated, owing to the want of timber for fencing, building and fuel; but, above all, the absence of any channel for conveying their products to market. All these wants will be supplied by our road. The timber east of the Wabash will furnish abundance of lumber. The coal will supply them with fuel, and the road will give them convenient access to all the markets of the country. In the prairies it does not require the labor of generations to clear the forest and bring the land into use. A fence and a plough is all that is needed to bring them, at

once, into a high state of cultivation. The experience of other portions of Illinois has shown with what rapidity the prairies are settled and brought into cultivation when their great wants, timber, fuel, and access to market, are supplied.

The timber, which now on the eastern portion of the line is burnt and destroyed, to get it out of the way of the plough, will be in great demand in Illinois.

"The coal which abounds near the Wabash will supply them with cheap fuel.

"Forty-eight miles west from Indianapolis, the line strikes the bituminous coal field of Indiana, extending to a point a few miles west of the Wabash, the belt being about twenty-five miles in width.

"The coal is of excellent quality, and from its close proximity to the road, and the ease and cheapness with which it can be mined, can be furnished for exportation, in large quantities for a very low cost."

PROGRESS OF THE WORK.—During the year, the work has been steadily prosecuted, and greatly more has been accomplished than, taking into view the failure of crops and the serious derangement in business, was anticipated.

Our contractors, Messrs. M. C. Story & Co., have punctually met all their engagements, and have not hesitated to persevere, notwithstanding the discouraging aspect of the eastern money market, and the distress occasioned by the drought in the west.

The location and amount of work done, as appears from the Report of the Chief Engineer, is as follows:

On the division extending from Indianapolis to Bainbridge.....	\$ 90,789
From Montezuma to Chicago Branch.....	188,290
From Chicago Branch to Decatur.....	23,112
	<u>\$302,200</u>

In cash.....	\$163,180
In stock.....	118,800
Reserved ten per cent.....	30,220
	<u>\$302,200</u>

Total..... \$302,200

The Board have adopted the policy of pressing the work on the division extending from Montezuma to the Chicago Branch, 50 miles, as rapidly as our means will enable us to do. And it is confidently hoped that we shall be able to make that division, including the bridge over the Wabash, ready for the iron during the present season, by the use of means now within reach.

The sources whence the Board expect to realize the means to continue the prosecution of the work until negotiations of our securities can be made without incurring any new embarrassments, are,

The unpaid Stock assessments due.....	\$141,841 95
Bills receivable.....	2,596 16
Bonds unsold.....	116,000 00
together with the proceeds of the sale of lands, the prospect for selling a considerable portion of which is good.	

### RECEIPTS.

Collections on Cash Stock.....	\$149,308 05
" " sales of land.....	3,706 14
" " bonds.....	33,730 10
Rents.....	928 12
Other sources.....	609 50
	<u>\$188,281 81</u>

### EXPENDITURES.

Engineering, (including preliminary surveys and location of road.....)	\$15,500 88
Solicitors of stock, etc., (\$10,300 paid in stock).....	14,785 25
Current expenses.....	4,050 14
Right of Way.....	3,866 70
Salaries.....	6,564 15
Commissions.....	1,168 97
Exchange and Interest.....	3,544 86
	<u>\$49,280 95</u>

For construction.....	163,128 00
	<u>\$212,408 95</u>

The Stock account, to date according to the Report, is \$2,004,600, of which \$1,594,350 was issued on subscription of real estate, at fair prices. The President recommends that the land stock be increased to \$3,000,000.

The estimated cost as made by the Chief Engineer is as follows:

The total cost of the road, with the depots, water stations and rolling stock provided for in our contract, is.....	\$3,738,500
Payable, 50 per cent., in the 7 per cent., first mortgage bonds of the Co.,.....	\$1,869,250
Twenty per cent. in stock.....	747,700
Thirty " " " cash.....	1,121,550

The items not included in the contract, which will be necessary to complete it and enable it to do the business anticipated for it, are estimated by the Chief Engineer, as follows:

Right of Way.....	25,000
Office and contingent expenses.....	50,000
Fencing.....	109,705
Side tracks.....	132,000
Additional rolling Stock.....	50,000

Making the total cost of the road.....\$4,105,250

The following characteristics of the lien, we have published before; but as our readers may not have a file at hand, we republish them:

The length of the road is, miles.....	149.54
The gradients are, level miles.....	57.55
Under twenty feet per mile.....	26.26
From 20 to 30 " " ".....	18.87
" 30 to 40 " " ".....	46.86
Straight line.....	139.05
Curved radius of 5730 feet.....	2.14
" " of 2864 ".....	2.08
" " of 1910 ".....	2.27
Longest tangent.....	70.60

Thus giving 93 per cent. of straight line.

It will be seen from the character of the curves and grades, the road will be enabled to carry heavy freights advantageously, and attain a high rate of speed.

### PENDLETON RAILROAD.

We learn from the proceedings of a meeting of the directors of this road, that the difficulties heretofore existing between the directors and their former engineer and the contractors, will not now delay the progress of construction.

It is stated by a correspondent of the *Pickens Courier*:

"The work was prevented from being suspended, only by the act of some of the Directors of the Blue Ridge Company, who obtained the money to carry it on by pledging their individual credit in bank.

In some instances the contractors have extended the time originally allowed to the sub-contractors. Over this the Blue Ridge Company had no control.

"After the grading is completed, some months must elapse before the road will settle sufficiently for the superstructure to be plac-



ed on it. By that time the iron will be procured, and the bridges will be in readiness.

"The difficulties existing between the Company and the contractors will not prevent the former, as things now stand, from paying the estimates punctually. Mr. Bangs has rescinded his former notice to the Company, with regard to paying his successor; and the estimates will be duly honored.

"It is supposed there is not more than two miles of grading, if so much, now to be done between this and Anderson. Of the amount thus far paid out on this portion of the road, more than seven-eighths has been furnished by the Blue Ridge Company, and less than one-eighth by ourselves.

"With this information before them, the Directors of the Pendleton Company determined, without dissent, to recommend to the Stockholders to pay up promptly the instalments heretofore called for, and endeavor to meet, punctually, the calls hereafter made. There can be no doubt, whatever, that our road will be built."

#### N. JERSEY RAILROAD AND TRANSPORTATION COMPANY.

At the Annual Meeting of the Stockholders of this Company, held at New Brunswick, the following statement of the financial condition of the Company was made:

##### FINANCIAL STATEMENT.

	1855.	1854.
Capital Stock paid in.....	\$3,253,925 00	\$2,750,000 00
Funded Debt.....	600,000 00	618,100 00
Floating Debt.....	108,596 95	62,622 88
Dividend, Jan. 1st, payable		
Feb. 1st.....	162,628 75	137,496 83
Profit and Loss.....	91,187 46	300,588 23
Total.....	\$4,316,328 16	\$3,768,801 11
Receipts from Passengers.....	653,192 00	635,752 80
" " Freight.....	73,116 49	64,517 97
" " U. S. M., etc	97,724 53	90,374 04
Total receipts.....	\$824,032 93	\$790,674 81
Expenditures.....	383,585 21	319,516 82
Balance.....	\$440,447 72	\$491,117 99
Which is accounted for as follows:		
Interest on Bonds.....	\$ 37,580 00	\$26,310 00
Trausit duty on Passengers & Freight.....	17,519 85	15,799 95
Tax on Capital and Stock.....	15,069 80	12,370 45
Dividends in Aug. and Feb.....	300,126 25	247,717 00
Profit and Loss.....	70,211 81	189,220 59
Passengers carried.....	2,433,715 1/2	2,170,243
besides commuters and free passengers.		
Tons of Freight.....	56,919 1/4	48,667
No. of miles run by trains of all kinds.....	355,656	329,901

The increase of the expenditures is attributable to the great advance in the cost of fuel, the expense of running trains per mile being increased from 97 cents to a \$1 07.

It is also stated in the report that a bill has passed the New Jersey Legislature, allowing the Company to straighten the line of their road, and to build a new bridge at market street, Newark, with an increase to the capital stock of \$500,000.

The following is the list of Directors for the ensuing year. There are no changes from the last year.

**Directors.**—John L. Darcy, Stephen Whitney, J. Phillips Phoenix, Hamilton Fish, Henry R. Remsen, Dudley S. Gregory, Adam Lee, John P. Jackson, John Acker.

#### CHICAGO & BURLINGTON R. R.—OPENING OF THE ROAD.

This road was recently opened by a grand excursion from Detroit, Cleveland, and Chicago to Burlington, Iowa. The excursion party was numerous and pleasant, full of wit and good humor, and the whole affair will be remembered as one of the pleasantest opening excursions of the year.

"The road has been built, says the *Detroit Tribune*, or a large portion of the stock is owned, by those who own the stock of the Michigan Central, and is in reality an extension of the road to the Mississippi. Its President, and one of its heaviest stockholders, Jas. F. Joy, Esq., its Superintendent, Chas. G. Hammond, Esq., and its Treasurer, Amos T. Hall, Esq., are all citizens of Detroit. The road is two hundred and ten miles in length, running through a country of almost inexhaustible resources, and of unrivalled beauty. Much of it is now wholly uncultivated, however, or is only used for pasturage. But this is not always to remain so. As the State becomes settled, these prairies will be taken up and cultivated; and it will not be many years before they will be spotted all over with luxuriant groves, commodious farm houses, and highly cultivated fields.

"The Chicago and Burlington Road taps the State of Iowa at a most favorable point. Burlington is a city of not far from 8,000 inhabitants, and is rapidly increasing. Beyond it and tributary to it, is a country as rich in agricultural resources as any other part of the Union. Through this rich district a railroad has been laid out on almost a straight line, to the Mississippi river, a distance of nearly two hundred miles. This will be completed within a comparatively short time, and ultimately to Fort Kearney, and beyond, as the country becomes settled. It will be seen, therefore, that though Chicago may derive a more direct as well as a greater advantage from the completion of this Road, it is an enterprise in which Detroit has a very important interest, as it places our city on the direct line of travel from Burlington and the whole Southern portion of Iowa to the East. We have a right, therefore, to rejoice with Chicago over the completion of so important an enterprise."

**RAILROAD OFFICERS.**—At a meeting of the stockholders of the Mississippi and Missouri Railroad Company, June 4th, 1855, the following persons were elected Directors for the ensuing year, to wit:

John A. Dix, Ebenezer Cook, William B. Ogden, William Walcott, Joseph E. Sheffield, Thomas C. Durant, N. B. Judd, Thomas M. Iselt, George Green.

And at a meeting of the Directors same day, the following persons were elected officers:

John A. Dix, President; Ebenezer Cook, Vice President; A. C. Flagg, Treasurer; Hiram Price, Secretary.

#### THE JOLIET CUT-OFF.

The *Joliet Signal* announces the completion at last of this short road. It is forty-five miles in length, and connects the Rock Island Railroad at Joliet with the Northern Indiana Railroad, at its southernmost point. It is, therefore, the straightening up of the route from Rock Island eastward, and will effect a material saving of time to through passengers. Chicago, through which it was necessary to go, is forty miles north of this route, and is reached by a northern detour on the part of both the roads. This necessarily occupied several hours, and was a serious detention. The road now completed is, therefore, one of great importance to those west and southwest of this route.

#### LEXINGTON AND DANVILLE RAILROAD.

We are pleased to learn that a great portion of the unfinished work on this road has been relet. It is a road of vast importance to Kentucky as well as Cincinnati. When opened, it must be a paying road. Its present economical management is a guarantee that it will be a profitable one.

LEXINGTON & DANVILLE R. R. OFFICE.  
Lexington, June 15th, 1855. {

I am gratified to be able to announce to the stockholders, that the timely aid given us by the public spirited citizens of *Cincinnati*, has enabled me to relet the unfinished portions of our road from this place to the *Clay Viaduct* across the Kentucky River, to reliable, experienced Kentucky contractors—to be completed with all possible expedition. I hope soon to put under contract the two first sections beyond the Kentucky River, which will open to us the valuable travel and trade of all Central Kentucky.

LESLIE COMBS, President.

#### THE MEMPHIS AND LITTLE ROCK R. R.

The company engaged in the construction of this important road, have not heretofore obtruded themselves before the public; but, since their commencement, have worked along in a quiet way, and most diligently, toward the purpose of their organization. Matters have now assumed such a position with them, and their work has so far progressed, that it is necessary for them to take measures to buy their iron, and make preparations for laying down the track, so that their sphere of operations will be hereafter more extended, and will necessarily bring them more in communication with the outside world.

In view of this, the President, by direction of the Board, has made a report of the character and situation of the line, and the progress of the work, and also a full, plain, and, as we think, most interesting and satisfactory exhibit of the affairs and finances of the company.

The matters placed before us by this report, as well as other matters known to us personally, do most certainly, in our opinion, entitle this road and company to occupy a very high, if not the very *highest* position as to wealth and value and prospect of prosperity which has been or can be held by any road in our country.



Standing alone, as it does, on the west of the Mississippi River, to be for years and possibly forever the only avenue by which travel and trade will go from the East and from that mighty river to the State of Arkansas, and to the far distant West and South-west, and seeming likely to be the entrance road to and outlet from a part and the most profitable part of a great railroad from Memphis to the Pacific Ocean, its situation is certainly most advantageous. That it will occupy that position in the Pacific railway seems, by the late surveys made by the U. States, and by the report of the Secretary of War, placed almost beyond doubt.

The country it pierces, from Memphis to Little Rock, we know to be most fertile both for grains and cottons; and, when tamed by the hand of improvement, it will equal in beauty, and we doubt not in salubrity, any part of our great South-west.

The route of the road has been established on an air-line, diverging from it only to cross rivers at proper and practicable points, and exceeding an air-line in length less than one mile in 128 miles.

The work of preparing the road bed was commenced in November last, and already some eighty-five miles of it are under contract in the hands of experienced contractors, and some sixteen or seventeen miles of it through the heavy timbered land, next to the Mississippi river opposite Memphis, are ready for the track. The whole eighty-five miles, under the contracts, will no doubt be also ready, so that if the iron be obtained as it is hoped, in about one year from now the cars will be passing over it. The means and resources of the company are most ample, so much so indeed, that it is confidently believed, with usually prosperous times, and a proper management, they will be altogether sufficient to build and finish and fully equip the line, *without any mortgage debt, or any other debt whatever.*

The Government of the United States, by an act of Congress passed in 1852, *donated* to the line the public lands alongside of it throughout its whole extent, the amount of 3,840 acres per mile. This gives to the company about 490,000 acres of very fertile land.

The city of Memphis has taken \$350,000 of stock, and the city of Little Rock \$100,000, and each of said cities has issued and delivered its bonds to the company to pay for its subscription. In addition to this, individuals have taken, and are now steadily paying up under calls from the company, \$450,000 of private stock.

The company have thought it best not to sell any of their donation lands, unless at fixed and appraised value, until the road is done, in order that they may realize the enhanced price which those lands will then sell for; but to make them aid nevertheless in building the road, by mortgaging them to Trustees to secure bonds to be issued on their value and credit, and to raise money by selling these bonds. In such issue of bonds they limit them by the express terms of the mortgage to be about \$3 00 per acre, or (if needed) \$1,500,000; although the lands are appraised by judicious men, who know them well, to about \$5 50 per acre or \$2,500,000. In accordance with this policy, the company have now issued \$500,000 of these mortgage land bonds, bearing 7 per cent. interest, payable semi-annually in New York, due in 20 years; and have executed the mortgage on the lands to secure them to the Trustees,

Geo. W. Riggs, Esq., of Washington City and New York, Jas. Elder, Esq., President of the Planter's Bank, Memphis, and the Hon. E. H. English, Chief Justice of the Supreme Court of Arkansas, gentlemen of integrity and intelligence unsurpassed anywhere. The mortgage gives the power to these Trustees to sell the land, or any of it, without suit, and on mere publication in the newspapers, to pay any interest or principal of the bonds, whenever the same may be unpaid by the railroad company.

The power is also given to these Trustees jointly with the Directors of the Company to control the private sales of the lands, and to appoint all agents for that purpose, and gives to the Trustees *sole* power over the proceeds of the sales, and requires them to fund the money to pay off the bonds. The whole system perfectly places the land and its revenue in the hands of the Trustees, for the sole purpose of satisfying the bonds so issued. The present issue of \$500,000 is, therefore, only at the rate of about \$1 00 per acre.

The whole cost of the road and buildings, with its first equipments, will be about \$3,200,000, or about \$25,000 per mile. The company are now in precisely the following situation:

They own, free and clear, without cost, 489,000 acres of land, appraised at \$2,500,000, but the appraisement, which they themselves, with a desire to be below the value rather than fully up to it, have made, reduces the amount to (at \$4 50 per acre).....	\$2,194,000
Stock subscribed by the city of Memphis.....	350,000
Stock subscribed by the city of Little Rock.....	100,000
Stock subscribed by individuals.....	450,000

Total resources.....	\$3,094,000
Total cost of road.....	3,200,000

Needed to complete it only.....\$ 106,000

Thus it is plain, that, at the present low and modest valuation of their lands, they would wholly pay for their road except \$106,000, and what they may have to suffer of discounts, while, at the valuation of the lands made by the appraisers, they would have \$406,000 to add to the above total, or some \$300,000 more than the work will cost.

Such is the situation and wealth of the company. They now desire to purchase their rails, engines, and equipments, so as to go rapidly to track-laying during the coming fall and winter. For that purpose they have sent John H. Bradley, of Indianapolis (who is largely interested in the stock of the road), to the East, with authority and directions to dispose of the above named bonds (if he can advantageously do so), and to purchase the materials referred to.

Mr. Bradley will therefore have with him, 7 per cent. 15 year bonds of the city of Little Rock, convertible.....	\$100,000
6 per cent. 30 year bonds of the city of Memphis.....	350,000
7 per cent bonds of the Company, issued on the land mortgage as above—all payable, principal and interest, in the city of New York.....	500,000
Total.....	\$950,000

Certainly there can be no better securities than these, and we solicit for them the early and careful attention of capitalists. Every one of the above bonds, principal and interest, will be paid as it falls due, and no bond can be better than that.

Should the company succeed in this arrangement (and we can hardly doubt it,) they would have ample means to enable the contractors to finish 85 miles of the road, (which they can do, they sincerely believe, in the next twelve months,) and thus the company would then be the owners of 85 miles of finished railway, and of all the balance of their

lands, over \$1 per acre, and owe but \$500,000 of bonds; and, surely, that would be a most enviable position for any road.—*Louisville Journal.*

#### SOUTH-WEST BRANCH PACIFIC RAILROAD.

MR. EDITOR.—I saw a short notice in your paper, as far back as the month of March, saying that the Pacific Railroad Company would be at work on the South-West Branch in two or three weeks—and yet up to this time we hear nothing more on the subject.

It is understood the new Board, on coming into office in March, found a deficiency of about \$60,000 to the subscription necessary to the commencement of the work, and that the members thereof very freely and liberally subscribed \$20,000, and then made an effort to obtain the balance in St. Louis or of the county of Franklin—neither of which plans succeeded.

Franklin county officials have acted on the "dog in the manger" policy, for they do not themselves appreciate the great benefit to the county, of the speedy building of the road, nor will they call for a vote of the people to say whether they will tax themselves \$12,000 a year to have this road built.

I have much confidence that if the subject were fairly placed before the people of Franklin county, the majority would vote for this trifling tax—especially if they were assured the road would be pushed to completion through the bounds of their county. I know that some of the largest landholders and tax payers in that county are in favor of the tax, notwithstanding they live in the north part of the county, and have paid largely toward building the main road along the Missouri River.

These men take a broad and liberal view of the question. They say St. Louis people have taxed themselves most liberally for the completion of the Missouri River road, which is so much benefit to the Northern part of Franklin, and that they can now afford to return the favor to St. Louis by aiding in the construction of the South-west Branch, which is to prove so important to the prosperity of St. Louis.

In addition to this, the half million that would be spent to construct the road through the southern border of Franklin, would benefit the citizens of that county far more than their taxes would injure them, or benefit the road.

But if the sleepy officials of Franklin county will not do their duty and authorize a vote for taxation, are we to fail in the commencement of the road this season? Will the new and energetic Board of Directors not devise ways and means to put at least twenty or thirty miles of the road under contract, and thereby afford a guarantee to the people and counties in the South-west, that they are in earnest, and the road is to be pushed on to Springfield as soon as the financial affairs of the county will permit?

I am a tax payer toward the completion of the Missouri River Road, yet I confess a stronger faith in the greater and immediate benefits of the South west Branch, to the prosperity of St. Louis and South Missouri generally, than I have in those of the Missouri River Road.

South-west Missouri is filled with the elements of mineral and agricultural wealth, and its influence upon the prosperity of St. Louis, when these now latent resources are made available by the construction of the South-



west Branch, will astonish all observing and reflecting minds.

I was at Gray's Summit, on the Pacific R. R., the past week, and was astonished at the amount of lead, copper, and iron I saw there from the mines in the valley of the Maramec, on its way to St. Louis.

I saw, too, wagons laden with wheat and peltry from the neighborhood of Springfield, one hundred and eighty miles distant, and iron blooms at James' furnace at the head of the Maramec, and could not help exclaiming, "why is St. Louis indifferent to the sources of wealth which lie spread out in such rich profusion in the valley of the Maramec and along the whole line of the South-West Branch Railroad?"

The Franklin furnace, at the mouth of the Burbois, employs seven or eight teams to haul her pig iron to the railroad, and several months will be consumed in this way in hauling off merely what the furnace has on hand at this time. So with the rich lead mines of Skewes and Valle, a little further up. Their teams are constantly on the road with lead and taking back supplies. The Stanton Copper Works, still further up the Maramec, are sending in a good deal of pig copper, and generally load back with flour, meal, groceries, etc.; and large teams from the pineries and for the merchants in south-west Missouri, throng the road constantly. Cattle, sheep and hogs also come from that quarter in great abundance; and perhaps the finest droves of fat cattle that come to the city, are furnished by the Cherokee nation, and travel this route.

The lead deposits of the Maramec region, to say nothing of the copper and iron, are heavier and richer than those of the Galena region, and when Professor Swallow's Geological report is published, there will be as great a rush of miners and mine speculators to the lead region in the South-West corner of Missouri, as there is now to the newly discovered gold field on the plains toward Santa Fe.

Mr. Editor, the *Intelligencer* circulates extensively along the line of the South-west Branch Railroad, and will you not gratify these readers, and fulfill your duty as a journalist, by stirring up both people and Directors to the importance of a speedy commencement of this great work?—*St. Louis Intelligencer*.

#### FORT WAYNE, LACON AND PLATTE VALLEY RAILROAD.

The contract for grading, laying down the ties, and fitting this road for the iron, from this city to the Ill. Central Railroad, has been taken by Mr. Samuel Thompson, an old experienced railroad contractor, and a gentleman well and favorably known in this community. We think the Company are fortunate in securing the services of such a man to superintend and prosecute the work, and that under his hands it will speedily be placed in a condition to receive the iron.

Mr. Thompson has contracted to build the road from the Ill. Central to the river at this city, a distance of nearly twenty miles, and furnish all the materials employed in the works, for \$125,000; \$100,000 of which is to be paid in cash, and \$25,000 in stock in the road. The work is to be commenced within June next, and progress as rapidly as means can be furnished by the Company. It is the intention of Mr. T., we understand, to make a commencement about the 10th proximo.

He is now in St. Louis, whither he has gone after men, teams, &c., which he has in employment.

The prospect of a speedy construction of this portion of the road may warrant us in taking a hasty glance at the probable cost of construction. The fitting the road for the iron, as will be seen by contract, amounts to \$6,250 per mile. Iron can now be purchased at from \$60 to \$65 a ton, and will undoubtedly be cheaper by fall, when the Company would want to buy it, as it is fast falling in the market. Estimating it at \$60 a ton, that would be about \$6,000 a mile for the iron. Here then we have our road laid down ready for the cars, at a cost of a little over \$12,000 a mile; and this is an average piece of the road, far more difficult to build than that portion extending east of it. To ballast this up, furnish it with a proportionable amount of rolling stock, necessary station houses, etc., would not cost over \$4,000 making the whole cost of this piece of the road when prepared for business, a little over \$16,000 a mile. This does not include the erection of a depot at this place such as the business of the road when wholly completed would require, but a temporary depot here and permanent station houses elsewhere on the line. We have been assured by competent persons that this estimate is very nearly correct.

The importance of a railroad communication, even of this extent, to our city can hardly be over-estimated. There is little doubt but that the amount of business growing up on such a line would be sufficient immediately to warrant the running of daily trains both ways, which would materially increase the business facilities of our city.—*Lacon Intelligencer*.

#### OHIO AND PENNSYLVANIA RAILROAD.

PITTSBURG, JUNE 8th, 1855.

Earnings in May, 1855.....	\$88,144 48
" " " " 1854.....	80,988 21
Increase.....	\$ 7,155 27
In first five months of 1855.....	429,451 81
In first five months of 1854.....	363,299 66

Increase (18 per cent.).....\$ 66,152 15

The country along the line is almost exhausted of produce, but the appearance of the growing crops is remarkably fine.

S. W. ROBERTS, Sup't.

GEORGIA CENTRAL RAILROAD.—We learn from the Savannah Courier that the Georgia Central Railroad and Banking Company, have declared a Dividend of four per cent. for the past six months. The business of the Road is in the highest degree prosperous—the earnings of the past six months amounting to \$733,643 94; while for the same period last year they amounted to \$600,936 52, showing an increase of \$132,909 42. The receipts of Cotton at Savannah by the Road for the six months amounted to 295,608 bales.

ENDORSEMENT OF THE NORTHWESTERN VIRGINIA RAILROAD BONDS.—An adjourned meeting of the Board of Directors of the Baltimore and Ohio Railroad Company was held on Wednesday afternoon to discuss the proposition to guarantee the bonds of the Parkersburg or North Western Virginia Railroad Company to the extent of \$500,000. After considerable discussion the proposition was adopted, and it is anticipated that sufficient funds can be raised on them to push the road to an early completion.—*Wheeling Gazette*, May 24.

## Miscellaneous and Mechanical.

### SURVEYING WITHOUT INSTRUMENTS.

It often happens that a surveyor or engineer wishes to determine approximately distances and localities, but having no instruments with him is compelled to adopt such means as he can get within his reach. The following chapter from Gillespie's Land Surveying contains some good suggestions:

DISTANCES BY PACING.—Quite an accurate measurement of a line of ground may be made by walking over it at a uniform pace, and counting the steps taken. But the art of walking in a straight line must be first acquired. To do this, fix the eye on two objects in the desired line, such as two trees, or bushes or stones, or tufts of grass. Walk forward, keeping the nearest of these objects steadily covering the other. Before getting up to the nearest object, choose a new one in line farther ahead, and then proceed as before and so on. It is better not to attempt to make each of the paces three feet, but to take steps of the natural length, and to ascertain the value of each by walking over a known distance, and dividing it by the number of paces required to traverse it. Every person should thus determine the usual length of his own steps, repeating the experiment sufficiently often. The French "Geographical Engineers" accustom themselves to take regular steps of eight-tenths of a metre, equal to two feet seven and a half inches. The English military pace is two feet and six inches. This is regarded as a usual average. 108 such paces per minute give 3.07 English miles per hour. Quick pacing of 120 such paces per minute gives 3.41 miles per hour. • Slow paces, of three feet each, and 60 per minute, give 2.04 miles per hour. A horse, on a walk, averages 330 feet per minute, on a trot 650, and on a common gallop 1040. For longer times the difference is more apparent.

An instrument called a Pedometer, has been contrived, which counts the steps taken by one wearing it, without any attention on his part. It is attached to the body, and a cord passing from it to the foot, at each step moves a toothed wheel one division, and some intermediate wheelwork records the whole number upon a dial.

DISTANCES BY VISUAL ANGLES.—Prepare a scale, by marking off on a pencil what length of it, when it is held off at arm's length, a man's height appears to cover at different distances (previously measured with accuracy) of 100, 500, 1000 feet, &c. To apply this, when a man is seen at any unknown distance, hold up the pencil at arm's length, making the top of it come in the line from the eye to his head, and placing the thumb nail in the line from the eye to his feet. The pencil having been previously graduated by the me-



thod above explained, the portion of it now intercepted between these two lines will indicate the corresponding distance.

**DISTANCES BY SOUND.**—Sound passes thro' the air with a moderate and known velocity; light passes almost instantaneously. If, then, two distant points be visible from each other, and a gun be fired at night from one of them, an observer at the other, noting by a stop watch the time at which the flash is seen, and then that at which the report is heard, can tell by the number of intervening seconds how far apart the points are, knowing how far sound travels in a second. Sound moves about 1090 feet per second in dry air, with the temperature at the freezing point, 32 deg. Fahrenheit. For higher or lower temperatures add or subtract 1 1-7 foot for each degree of Fahrenheit. If a wind blows with or against the movement of the sound, its velocity must be added or subtracted. If it blows obliquely, the correction will evidently equal its velocity multiplied by the cosine of the angle which the direction of the wind makes with the direction of the sound. A gentle, pleasant wind has a velocity of 10 feet per second; a brisk gale 20 feet per second; a very brisk gale 30 feet; a high wind 50 feet; a very high wind 70 feet; a storm or tempest 80 feet; a great storm 100 feet, a hurricane 120 feet; and a violent hurricane, that tears up trees, &c., 150 feet per second. If the gun be fired at each end of the base in turn, and the means of the times taken, the effect of the wind will be eliminated.

If a watch is not at hand suspend a pebble to a string (such as a thread drawn from a handkerchief) and count its vibrations. If it be 39 1-8 inches long, it will vibrate in one second; if 9 3-4 inches long, in half a second, &c. If its length is unknown at the time, still count its vibrations; measure it subsequently; and then will the time of its vibration, in seconds, equal the square root of the length of the string divided by 39 1-8.

#### MINERAL OILS.

The decreasing supply of fish oils and the consequent increase of price, and the increased consumption of oils in general have long been felt in the mechanical world. It has been a serious question to find an oil which should be cheap, of good quality and abundant in supply. Such a substance is likely to be found in the distillation of coal.

Various experiments with different kinds of coal have been made with various success. We give below the result of the recent experiments of Prof. Ellet, formerly of the University of South Carolina and his brother, on the Breckenridge coals of Kentucky:

Products.	per ton.
Illuminating oil.....	20 gallons.
Lubricating oil.....	62 "
Oil paraffine.....	7.2-79.2 gal.

The decomposition of the coal was effected by the use of highly heated steam brought directly into contact with the coal—the yield in crude oil amounting to at least 40 per cent. of the coal.

When pressed ready for market, the experimenters estimate the product at

Pure illuminating oil.....	15 gallons.
Pure lubricating oil.....	75 "
Solid paraffine.....	18.75 lbs.

The report of these gentlemen states that the present market value of these products is between forty and fifty dollars, and that the cost of distilling and purifying will be from five to six dollars per ton.

The desideratum thus sought for by these gentlemen, we trust will be obtained and brought into successful use. It is a matter of great importance both in mechanical and social life. If they have rightfully calculated the cost, the profit of the business will be immense.

#### PUMPS FOR RAILROAD STATIONS.

In a recent number of the Record, we made a brief mention of McGowan's Double Action Suction and Force Pumps in connection with our visit to the Fair of the Mechanics' Institute of this city, just closed. The examining committee of the Institute have awarded a silver medal to the inventor of these pumps.

The pumps themselves have peculiar advantages in their mechanical arrangement. Simple, compact, and of great power, they are decidedly the best now in use. Those who read our previous notice, will remember that the air chamber is a large cylinder, hence the water does not travel through small pipes to arrive at it. One advantage of this arrangement is found in the simplicity of its valves, and in the fact that the least motion of the pump gives a continuous stream of water.

McGOWAN'S COMPOUND PUMPING ENGINE, designed principally for railroad water stations, elevating water and sawing wood at the same time. This machine we also saw at the Fair. It worked admirably, discharging a continuous *three inch* stream of water with great velocity. It is a *direct action engine*, hence saves friction. It is provided with an arrangement for feeding boiler and a governor regulating its motion. Its steam cylinder is eight inches in diameter, and twelve inch stroke. The pump is entirely under control; it can be stopped at will without unshipping its machinery, and the whole power of the engine applied to the band balance wheel for sawing wood. We were informed by the exhibitor (Mr. T. J. McGowan,) that it has the capacity of discharging 6,000 gallons of water per hour. When it is required to examine the valves of the pump, it is only necessary to raise two caps, one on the back which covers the force valve and one in front, which covers the suction valve. It is an excellent machine for

railroad water stations, furnaces, factories and stationary fire engines.

We believe these machines are in use on most of the principal railroads in this and adjoining states. We think there can be no doubt of the durability and efficiency of these pumps and pumping engines. They were invented by a Cincinnati Mechanic, and are manufactured in this city by George D. Winchell & Bro., 172 Elm Street.

#### STEAM GAUGES.

We ventured last week a few remarks on the importance of steam gauges to every boiler. And as we had on Friday last positive proof in our own boiler of their utility, we give our readers the benefit of our experience. In showing our steam gauge to a gentleman, he doubted the correctness of its indications, and remarking that he could tell, by the sound of the escape at the safety valve, very nearly the pressure, proceeded to raise the lever of the valve, but for some reason the lever did not raise, and it required one man's strength at the end of the lever to raise it from its seat. But when it did move, it went with a noise like the report of a pistol, and covered us with dust and ashes. The safety valve had got stuck to its seat, and would have stood a pressure of a thousand pounds before it raised, whereas we ought to run at eighty, and this was the pressure indicated by the gauge. Our safety valve while thus fast, was no protection against accident, and if the steam had been very high, would have given no indication. We have known of the safety valves of locomotives getting fast in like manner, and when fully detached, making a report as much louder than the one described, as the pressure in the locomotive boiler is greater than in the boiler of a stationary engine.

#### BOILER TUBES.

We are indebted to Thomas Prosser & Son, New York, for a circular under date June 15, containing price list of their patent lap welded boiler tubes and free-joint iron tubes for core bars, railings, awning frames, leaders, &c.

The following is the list of prices for boiler tubes:

Diam. Inches.	Price per ft. Cents.	Diam. Inches.	Price per ft. Cents.
1½.....	22	3.....	48
1¾.....	25	3½.....	65
1½.....	28	3¾.....	65
2.....	32	4.....	84
2¼.....	35	5.....	140
2½.....	39	6.....	200
2¾.....	43	7.....	250
Free-joint Iron Tubes.			
¾.....	3	2¼.....	16
1.....	10	2½.....	18
1½.....	12	3.....	20
2.....	14	3½.....	22

Specimens of the boiler tubes and the glazed tubing for artesian wells may be seen at our office.



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHARES.	OFF'D.	ASK'D.
Alabama and Tennessee	1st mortgage, convertible in 1872	7 1872					
Baltimore and Ohio	Transferable. Taxed.	6 1875	79%		100	44	44
Do do	Coupons. Not Taxed.	6 1875					
Do do	"	6 1880					
Do do	"	7 1860					
Do do	"	6 1885					
Bellevue and Indiana	1st mortgage, convertible	6 1866	98		50	42	
Buffalo and Penn. State Line	1st mortgage, not convertible	6 1866					
Chicago and Rock Island	1st mortgage, convertible	7 1870	98	99		94	95
Chicago and Mississippi	1st "	7 1862					
Do do	2d "	7 1874	65				
Chicago and Aurora	1st "	7 1866					
Cincinnati, Newcastle and Mich.	Real Estate	7 1859					
Cleveland, Columbus, and Cincinnati	1st mortgage, convertible	7 1859			100	109 1/2	110
Do do do	No mortgage, convertible	7 1855					
Cleveland and Mahoning							
Cleveland, Painesville, and Ashtabula	1st mortgage	7 1861			100		
Do do do	2d " not convertible	7 1861					
Cleveland and Pittsburgh	1st " convertible	7 1860				43	45
Do do do	1st " 2d sec. convertible	7 1873					
Cleveland and Toledo	1st mort. not conv. '73	7 1863	74 1/2	76	50	81 1/2	82
Cleveland, Zanesville, and Cincinnati							
Cincinnati, Hamilton and Dayton	1st mortgage " till 1855	7 1867				70	73
Do do do	2d mortgage	7 1868	84	85			
Cincinnati, New Castle and Michigan	1st mortgage, real estate, conv.	10 5 & 10 y's	27	30			
Cincinnati Western	"	8 1867	44 1/2			15	15
Cincinnati, Wilmington and Zanesville	2d "	7 1867	65	68		40	45
Cincinnati, Indianapolis and Chicago							
Cincinnati and Chicago	Real Estate	8 1859	40			12	15
Columbus, Piqua and Indiana	1st mortgage, convertible	7 1862	75	76			
Do do do	2d "	7 1862	60	61			
Columbus and Xenia	1st mortgage, convertible	7 1859	80			93 1/2	100
Covington and Lexington	2d " till 1862	7 1863	60	65	50	18 1/2	25
Do do do	Income	10 1867	70	75	50	20	22
Dayton and Michigan	1st "	7 1862					
Dayton and Western	1st "	7 1862					
Dayton, Xenia and Belpre	1st "	7 1864	26	30			
Eaton and Hamilton	1st mortgage	7 1862		60	25	30	32
Erie and Kalamazoo	1st mort. guaranty Mich. S. R. R.	7 1862					
Evansville and Crawfordville	1st mortgage	7 1862	80	81			
Fort Wayne and Southern							
Franklin and Warren						12 1/2	14
Galena and Chicago Union	Pledge of second section, convertible	10 1853-6	92 1/2		100	105	106
Hillsboro and Cincinnati	1st mort.	7 1862	55	60	50	22 1/2	25
Illinois Central	1st mortgage, not convertible	6 1875	81	82	100	95	100
Do do do	Freeland	7 1866	75	76			
Indiana Central	1st mortgage, convertible	7 1866	63 1/2	75	50	45	50
Do do do	"	10 1857	80		50		
Indianapolis and Bellefontaine	1st "	7 1860-1	75		25	50	50
Indianapolis and Cincinnati	2d mortgage	7 1861	80	82	50	60	62
Indianapolis and Lafayette	"	7 1861			50		
Jeffersonville	1st " not	7 1861				36	
Junction (Ohio)	1st "	7 1867			50	15	17
Do Indiana	Real Estate	10 1861	72	73		12 1/2	
La Crosse and Milwaukee	"	8 1864	77	82	100		
Little Miami	1st mortgage, not convertible	6 1863			50	100	101
Do do do	" " till 1855	7 1861					
Louisville and Nashville	" unconvertible	7 1858	93 1/2		100		
Lyons, Iowa, Central	1st mortgage, convertible	7 1873					
Mad River and Lake Erie	1st mortgage, convertible till 1855	7 1855-6		75	50	30	32
Do do do	2d "	7 1866		75			
Do do do	Dividend	7 1860		75			
Madison and Indianapolis	1st mortgage, convertible after 1853	6 1861			50		
Marietta and Cincinnati	Domestic Bonds	7 1868	57 1/2	60	50	27 1/2	30
Do do do	2d "				50		
Hillsboro and Cincinnati	1st "						
Maysville and Big Sandy							
Maysville and Lexington	1st mortgage, convertible	6 1873			50		
Memphis and Charleston							
Michigan Central	No mortgage, convertible	8 1860	97			98	100
Do do do	" not "	8 1855-6					
Do do do	" " "	8 1857-8					
Michigan Southern	1st " " "	7 1860-90		100		104 1/2	106
Milwaukee and Mississippi	1st " " " 1857	8 1862					
Mobile and Ohio							
Nashville and Chattanooga	1st mortgage 6s. 1884						
New Albany and Salem	mortgage on 1st section	10 1858-62			50	15	20
Do do do	1st " on other section, convert.	8 1864-75					
New Castle and Richmond	1st " convertible	6 1873					
New York Central			103 1/2	104			
New York and Erie	1st mortgage, not convertible	7 1867			100	98	100
Do do do	2d " convertible	7 1871	90	95	49	50 1/2	
Do do do	"	7 1883	94 1/2	95			
Northern Cross, Ill.	1st mortgage, convertible	8 1873					
Northern Indiana	1st " not convertible	7 1861	79			97	98
Do do do	1st " Goshen line	1868	90	91			
Do do do	Construction Bonds						
Ohio Central	1st mortgage, convertible	7 1861	61			40	41
Ohio and Mississippi	2d "	7 1860	62 1/2	57	50	22	25
Ohio and Indiana	1st "	7 1867					
Ohio and Pennsylvania	"	7 1865					
Do do do	Income. No mortgage, convertible	7 1872			50		
Pacific, Mo.							
Panama	1st mortgage, convertible	7 1866	101 1/2	105		101	101
Parkersburg (or Northwestern Va.)	" Guar. City of Baltimore	7 1873					
Pennsylvania	1st mortgage, convertible till 1860	6 1880			50	43 1/2	40
Peru and Indianapolis	1st "	7 1872			25	22	25
Rock River Valley Union	1st "	7 1860			50		
Sandusky and Mansfield	2d "	10 1853-7					
Do do do	1st " income	7 1861	50	51		50	51
Scioto and Hocking Valley							
Southwestern, Tennessee							
Springfield and Columbus							
Stuebenville and Indiana	1st mortgage, convertible	7 1865					
Terre Haute and Alton	1st "	1862-72	75 1/2				
Do do do	2d "	8 1865					
Terre Haute and Richmond	1st "	6 1866					
Toledo, Norwalk and Cleveland	1st "	7 1863	87	88	50		
Do do do	2d "						
Do do do	Guar. of C. C. & C.	1883					



## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D
U. S. Loan.....	6	1856	105	105
Do.....	6	1862	112½	113
Do.....	6	1867	116½	120
Do.....	6	1868	118½	120
Do (int. ceased July 1) 5	1853		102	
Do Coupons.....	6	1862		118
Do.....	6	1867		118
Do.....	6	1853		101

## STATE.

Alabama.....	5			
California.....	7	1870	90	92
Arkansas.....	6			95
Georgia.....	6		90	95
Do.....	7			
Illinois Canal Bonds.....	1860			
Do do registered.....	1860			
Do do.....	1847			
Do do registered.....	1847			
Do do Internal Imp't.....	1847		94	95
Do Interest do.....	5		64	64
Indiana.....	2½		83½	87
Do.....	2½		53	54
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	97	
Do.....	5			
Louisiana.....	6		93	94
Michigan.....	6		97	98
Missouri.....	6		93½	95
New York.....	6	1860-61	109	110
North Carolina.....	6		99	100
Ohio.....	6	1856	101½	
Do.....	6	1860	104½	105
Do.....	6	1870	111	112
Do.....	6	1875	112	113
Do.....	5	1855		
Pennsylvania.....	6			
Do.....	5	1870	87	88
Tennessee, long loan.....	6	1890	96½	98
Do Coupons.....	5		82	83
Virginia Coupons.....	6	1886	100	101

## CITY SECURITIES.

Albany.....	6	1871-81	99½	
Allegheny.....	6	1875-7	80	
Baltimore.....	6	1870-90	96½	97
Do.....	5	1865		
Boston Bonds.....	4½	1860		
Chicago.....	6	1873-7	92½	95
Cleveland.....	6	1879	103½	105
Cincinnati.....	6	1861-92	96	96½
Do.....	6	1897		
Do.....	5	1884		
Do W. W.....	6	1865		
Covington.....	6	1857	75	77
Lawrenceburgh, la.....	7			
Louisville.....	6	1880	84	89
Memphis.....	6	1882	72½	
New York.....	7	1857	100½	
Do.....	5	1858-00	95	99
Do.....	5	1870-5	97	100
Do.....	5	1890		
Philadelphia.....	6	1876-90	92	93
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1883		
Racine.....	7	1873	61½	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1872	74	76

## COUNTY BONDS.

Bourbon, Ky.....	6	1881		
Darke, O.....	7			
Fairfield, O.....	7			
Fayette, Ky.....	6	1881-3	75	75
Hancock Co.....	7		70	75
Mason, Ky.....	6	1881	69	66½
McCracken Co. Ky., endorsed by New Orleans and Ohio R. R.	6	1866	80	85
St. Louis.....	7	1871		

## BANKS.

OHIO.				
American Exchange Bank, N. Y.....	105½			
Ohio Life Insurance and Trust Co.....	101½	102		
Washington Insurance Co.....	84	85		
City Insurance.....	70			
Cincinnati Insurance Co.....	84			
National Insurance.....	75	80		

## KENTUCKY.

Bank of Kentucky and Branches.....				
Northern, and Branches.....	100			
Southern, and Branches.....				
Bank of Louisville.....	93			
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....	107½	108		
Commercial Bank of Kentucky.....				

## INDIANA.

State Bank and Branches.....				
TENNESSEE.				
State Bank and Branches.....				
Union.....				
Planters.....				

## LAND WARRANTS.

160 acre warrants.....	Off'd.	Ask'd.		
80 acre warrants.....	\$176			
40 acre warrants.....	88			
	44			

## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	½	½
Boston.....	Sight.....	½	½
Philadelphia.....	Sight.....	½	½
Baltimore.....	Sight.....	½	½
New Orleans.....	Sight.....	½	½
England.....	Sight.....	110	110½

## SPECIE.

California clean, 9 oz.....	\$17 60	@	\$17 65
Spanish Doubloons.....	16 75	@	16 75
Patriot Doubloons.....	15 75	@	15 80
Sovereigns.....	4 85	@	4 87
Guineas.....	5 09	@	5 00
American, new.....	1 00	@	1 00
American, old.....	1 06	@	1 06
Portuguese.....	1 00	@	1 00½

## SILVER.

American Dollars.....	1 04	@	1 04
American Halves.....	1 04	@	1 04½
Spanish Dollars.....	1 12	@	1 13
Spanish Quarters.....	1 00	@	1 01
Mexican Dollars.....	1 05½	@	1 06
Five Franc pieces.....	97½	@	98

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

## MERCHANTS' EXCHANGE,

## AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending June 20, 1855.

\$2,000 Ohio & Miss. R. R. Co., 2d Mort.			
7 per cent. Bonds.....	51½	@	(int.)
2,000 Ohio & Miss. R. R. Co., 2d Mort. 7			
per cent. Bonds.....	50	@	
3,000 Ohio & Miss. R. R. Co., 2d Mort. 7			
per cent. Bonds.....	52½	@	
1,000 Hancock Co., Ohio, 7 per cent. Bonds			
due in 1864.....	70	@	
5,000 Cin., Wil. & Zanes. R. R. Co., 2d			
Mort. 7 per cent. B's, due in 1864. 65			
2,000 Covington & Lexington R. R. Co., 10 per			
cent. Income Bonds.....	70	@	
132 Shs. Cin. & Chicago R. R. Stock	11½	@	
80 " " " " " " " " " " " "	11½	@	
16 " Marietta & Cin. " " " " " "	25	@	
56 " " " " " " " " " " " "	27½	@	
15 " Cin., Ham. & Day. " " " " " "	70	@	
100 " Junction " " " " " " " "	10	@	
150 " N. Albany & Salem " " " " " "	15	@	
200 " Little Miami Ex-div. " " " " " "	95	@	
62 " Eaton & Hamilton " " " " " "	30	@	
200 " Hillsboro & Cin. " " " " " "	22½	@	(int.)
24 " Indianapolis & Cin. " " " " " "	60	@	
50 " Cin., Har. & Ind. " " " " " "	8½	@	
257 " Ohio & Mississippi " " " " " "	18	@	
200 " " " " " " " " " " " "	20	@	
144 " " " " " " " " " " " "	20½	@	
120 " " " " " " " " " " " "	20½	@	
60 " " " " " " " " " " " "	20½	@	
229 " " " " " " " " " " " "	22	@	
20 " Farmers Bank of Kentucky.....	107½	@	

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

E. F. SATTERTHWAITE, STOCK BROKER, LON.  
June 1st, 1855.

Cleveland and Pittsburgh, 1st Mort, 1850. —	@	80
Erie, 3d Mortgage, 1883.....	85	86
" Sinking Fund.....	80	81
Grand Trunk (Canada) Debenture.....	94	96
Great Western " conv.....	110	112
" " non-conv.....	102	104
Illinois Central, 1st Mort., 7½s.....	69	69
" " " " " " " " " " " "	68	69
Marietta and Cincinnati, 1st Mort.....	77	82
Michigan Central, conv., 8½s.....	88	90
N. York Central, No Mort. Not conv.....	80	82
" " conv.....	94	96
Ohio and Mississippi, 1st Mort.....	81	82
Pennsylvania, 1st Mort., conv.....	91	92
" " Sterling, 2d Mort.....	88	90
Steuensville and Ind., 2d Mort.....	87	88

## Monetary and Commercial.

The past week may in general be characterized as a dull one; but little business is doing, and transactions are mostly of a limited character. Sales are more for immediate than any prospective necessity.

The money market continues well supplied for prime business paper. We quote discounts easy at 10 to 12 per cent. for first class names, offerings of this kind continue limited. Second class paper and varieties little known, are difficult of negotiation at 18 to 24 per cent.

Eastern Exchange is dull and declined ¼ to ½ per

cent. Currency continues scarce; small notes are almost impossible to obtain.

Stocks have rallied a little; but the market still lacks buoyancy and tone.

Advices from the East continue favorable. In the early part of the week, efforts were made to bear down a few varieties; but towards the close, prices advanced and considerable activity was manifested.

Exchange is in more active demand, and in proportional supply.

**RAINS vs. RAILROADS.**—We are sorry to learn from a gentleman who was over a portion of the road, that the Steubenville & Indiana Railroad has been a heavy sufferer from the late heavy rains. Large portions of the Road have been washed away in many places, nearly the entire length of the road. No train has gone through since Thursday last, and our informant thinks none can get through before the last of this week. He fears the cost of repairs will not fall short of \$50,000.

The S. M. & N. Railroad bridge, over Owl creek, at Mt. Vernon, was also washed away, on Thursday, we think. Trains run to that point from both ends, and passengers are conveyed around the break in carriages.—*Zanesville Courier*, June 14.

**THE WHEELING INJUNCTION.**—We learn from the *Intelligencer*, that on Tuesday last, the Baltimore and Ohio Railroad Company made a motion before Judge Thompson, in vacation, to dissolve the injunction heretofore awarded against the Benwood connection between the Baltimore and Ohio Railroad and the Central Ohio Railroad. The court having heard the parties, rendered its decision on Thursday morning, overruling the motion, and directing the Injunction to stand.—*Zanesville Courier*, June 14.

## OPENING OF THE LEHIGH VALLEY R. R.

**EASTON, May 25.**—The first Locomotive was run over that portion of the Lehigh Valley Railroad to-day, from South Easton to near Freemansburg. The portion of the road passed over is constructed in the best possible manner, and reflects much credit on the engineer, Robert H. Sayre, Esq. A number of citizens accompanied the excursion. It is expected that the trains will be regularly run from South Easton to Catasqua by the 1st of June next.

## CATALOGUE OF PATENTS;

Showing the *Subject or Title of Every Patent* granted by the United States Patent Office prior to the present year, and the *number under each title*; being a complete view of all that has hitherto been done in the whole field of Invention. Price 25 cents. For sale only by the Author. Copies sent by mail Address, J. S. BROWN, Washington, D. C.

C. WELLENAU,  
Artist of Ornamental Penmanship,

HONORARY MEMBER OF SEVERAL ACADEMIES OF FINE ARTS AND SCIENCES, &c. &c.

Respectfully offers his services to the public of this city, for the writing of ALBUMS, TITLE PAGES, DIPLOMAS, SHOW CARDS, TEXTS,

## Dedications, Inscriptions &amp; Certificates,

In the most magnificent and splendid style. Also

INVITATION, WEDDING AND VISITING CARDS,

Superior to Engraving.

All executed with neatness and dispatch. Office No. 126 Fourth, cor. of Race street.



## Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to  
JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing of machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENNA. R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBART, Superintendent.

ENGINEER DEPARTMENT, NORTH P. A. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. Parry, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## Mercurial Steam Gauges.

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

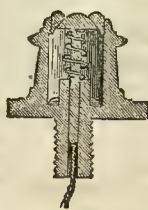
"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DURAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.

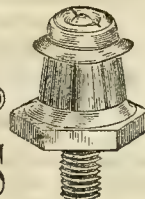
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

## RICHARDSON'S

PATENT



OIL  
CUPS



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

NOTICE TO CONTRACTORS.—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Obion (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburg and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

may 17-4t. BRCKER & RUST,  
[Railroad Journal please copy.] General Contractors.

## STEREOTYPE FOUNDRY,

AND AGENCY OF

L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)

is prepared to execute in the best manner all kinds of STEREOTYPING, including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,

168 1-2 Vine Street, Cincinnati, O.

## RAILROAD IRON.

I WOULD respectfully call the attention of Railroad Companies and Contractors to my facilities for NOTCHING RAILROAD IRON

Suitable to be spiked in the Chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. Address,

San 11.-4t. S. M'KENNA,  
Box 705, Cincinnati P. O., Ohio.

## GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION & FORCE PUMP

AND

## STEAM PUMPING MACHINE,

WOULD respectfully invite the attention of RAILROAD Companies and the public generally to their Pump, as the best Pump now in use; they are simple in their construction, compact, durable and not likely to get out of order; we adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes when a Pump can be used. Also, for forcing a large body of water to a great height or distance.

These Pumps are used on nearly all the principal Railroads South and West.

Silver Medal (the highest premium) awarded at the late Fair of Ohio Mechanics' Institute.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled.

June 21, 1855-ly

## Railroad Printing.

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,

Railroad Record Office, 167 Walnut st Cin.

## GAS.

AUBIN'S PATENT.—We are agents for this new and improved furnace, and having had one in operation at our office for several months past, can confidently recommend it as being simple in its operation, occupying little room and furnishing a pure and beautiful burning gas. From the peculiar arrangement of the retort it is not liable to burn out, thus saving a great part of the expensive repairs of other furnaces. We are prepared to erect these furnaces at our own risk and warrant them to produce good gas.

T. WRIGHTSON & CO.,  
167 Walnut-st., Cin'tl.

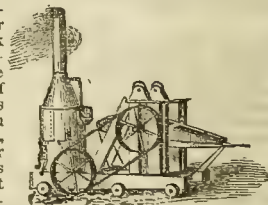
## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.

A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

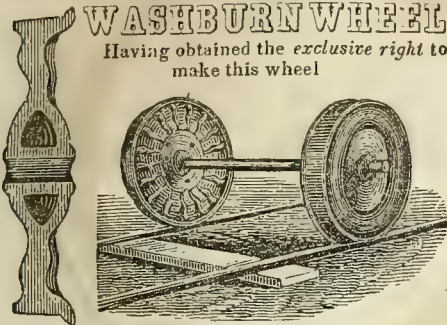
G. ARTHUR GARDNER,  
Trinity Building, N. York.





## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

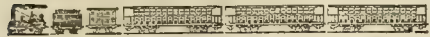


**WASHBURN WHEEL**  
Having obtained the *exclusive right* to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL.

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

**J. DAVENPORT . . . M. D. WELLMAN . . . C. M. RUSSELL**  
**DAVENPORT, RUSSELL & CO.,**

## Railway Car Manufacturers, MASSILON, OHIO.

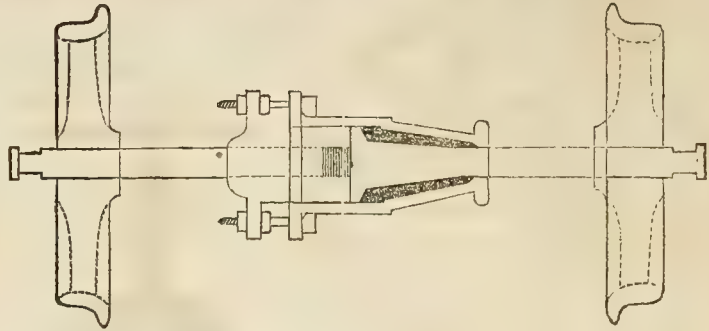
THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16<sup>th</sup> **JOSEPH DAVENPORT.**

**S. C. THOMSON & CO.,**  
MANUFACTURERS OF  
**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n.12<sup>th</sup> **NEWARK, N. J.**

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels. That is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

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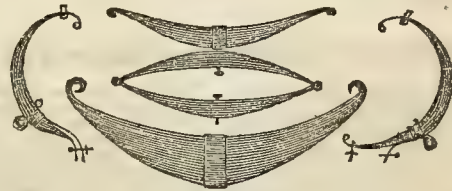
**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**

Gap, Pa.

**MCDANIEL & HORNER,**  
**LOCO- AND CAR**  
**MOTIVE SPRING**



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**McDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

**NORRIS BROTHERS, Locomotive Builders, Philad.**

**A. C. GRAY, Prest. New Castle Manuf. Co.**

**U. WELLS, R. R. Car Manuf. Petersburg, Va.**

**I. R. TRIMBLE, Supt. Philad. R.R. Co.**

May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.**

**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**

**THOMAS DOUGHERTY, Master Mach. do.**

**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.**

## DURYEE & FORSYTH'S PATENT PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

**HEWSON & HOLMES,**  
83 and 85 Walnut Street.

## THOS. M. CASH, PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

### REFERENCES.

**Richard Norris & Son, Locomotive Builders, Philad'a,**

**Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "**

**Charles H. Fisher, Esq. "**

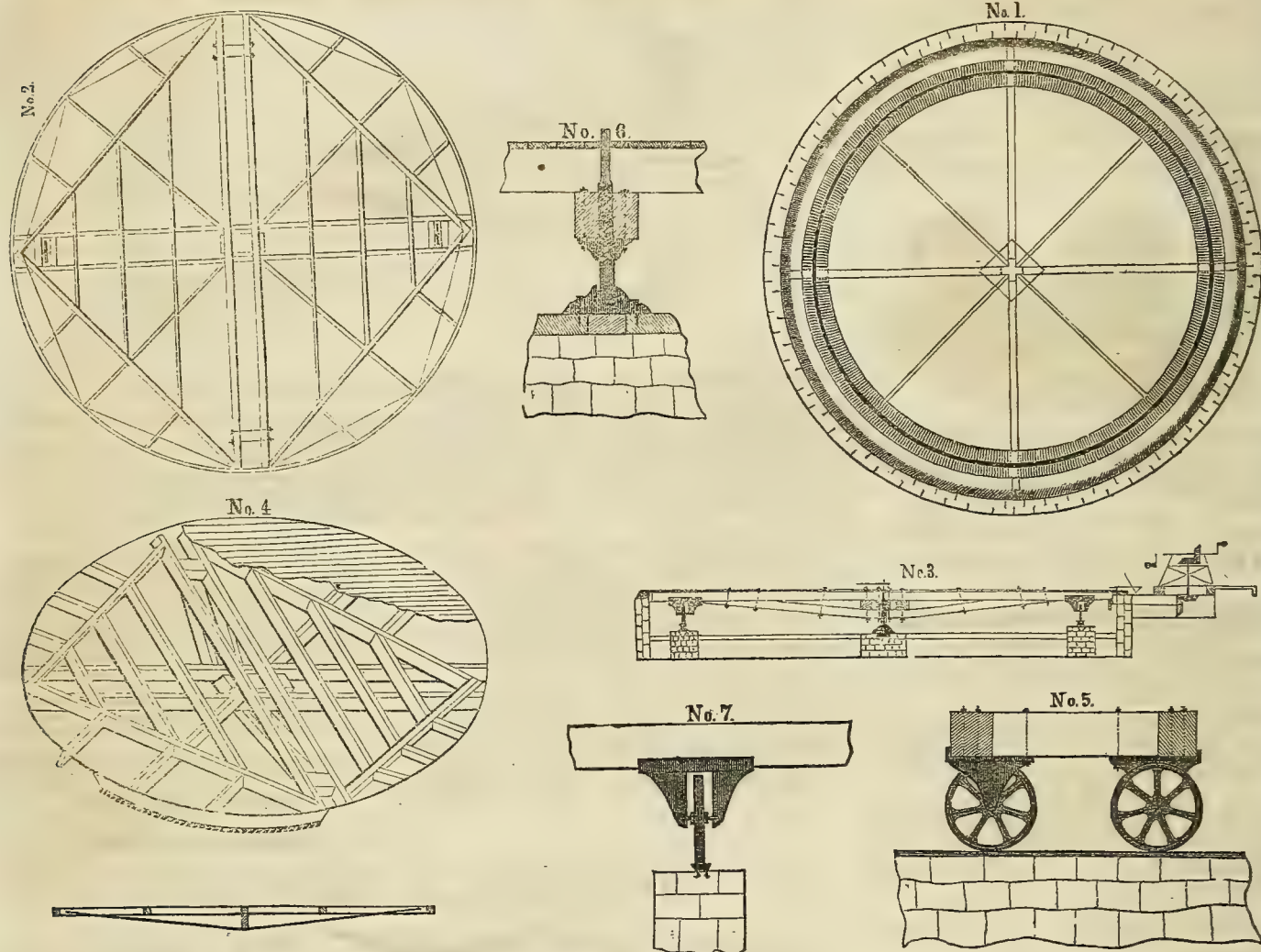
**Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.**

**Pinekey Huger, Esq., Pres't N.E. R. R. Co. "**  
Oct. 13-14.



# CARHART'S IMPROVED TURNTABLE.

Now building, for 13 Principal Roads in Ohio, Indiana, New York, New Jersey and North Carolina.



This Table, together with an Engine and Tender of 30 Tons Weight, can be turned by One Man in 25 Seconds.

RAILROAD COMPANIES in want of Turntables of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction.

The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Supt and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Supt, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Supt, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Supt, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborn, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Supt, Marion, O.  
Cleveland & Pittsburgh Railroad, J. Durand, Supt, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, North Carolina.  
Central North Carolina Railroad.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.  
Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of Bank and Track Walls, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the store track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,  
D. M. CARHART, Cleveland, Ohio.

## RAILROAD HOTEL.

CINCINNATI, O.

THE GIBSON HOUSE, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.

A. WETHERBEE, Proprietor.

## TO RAILROADS AND CONTRACTORS.

HORSE POWERS.—The undersigned being agents for the sale of R. H. Pease formerly Emery & Co.'s Horse Powers, are prepared to furnish them to order. They occupy little room and do their work effectually. T. WRIGHTSON & CO.

## MATHEMATICAL INSTRUMENTS.

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Streets,  
No. 1, 2d STORY APOLLO BUILDING,  
CINCINNATI, O.,  
MANUFACTURERS OF  
Surveyors' & Engineers' Instruments,  
Theodolites, Transits, Levels, &c.,  
REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.  
Orders promptly attended to.



# Railroad Record.

**H. D. MANSFIELD,** - - - Editor.  
**W. WRIGHTSON,** } Associate Editors.  
**J. A. JAMES,** }

**CINCINNATI:**  
 THURSDAY MORNING, JUNE 28, 1855.

**E. D. MANSFIELD,**  
 May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

EUROPEAN AGENTS FOR THE RAILROAD RECORD.—Our European agents are Messrs. Algar & Street, of the London Provincial and Colonial Newspaper Advertisement Office. No. 11 Clements Lane, London, England.

## Railroad Record

PUBLISHED EVERY THURSDAY MORNING,  
 BY T. WRIGHTSON & CO.

Office No. 167 Walnut Street,  
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Graham's American Monthly for July, is on our table. The subscription price of this excellent magazine is Three Dollars per year in advance: two copies five dollars, six copies ten dollars.

**HARPER'S GAZETTEER.**—1855.—Harper's Statistical Gazette of the World, is a magnificent statistical work of 1952 pages. It is got up in the usual Harper style, substantially and well bound. It is illustrated with seven maps. Its statistics are taken from the latest and best authorities, government reports and the most reliable works of individual publication, in Europe and the United States.

It is a most valuable work for the library, and should be in every railroad office.

**VOL. III.—No. 18.**

## CONNECTION BETWEEN OUR RAILROADS.

We believe it is pretty generally conceded that the railroads centering at this city from east to west and north to south, *must* and *will* eventually have a common meeting ground somewhere, with central depots, and the means of transferring freight without charge for drayage, commissions and the thousand etceteras that are frequently found appended to the bills of forwarders. The value of our city roads depends, in a great degree, on their means of successfully competing with rival lines tending to divert business. Make a *perfect* connection, and you secure the *maximum saving* of time, and economy of transportation, and where there is the greatest saving of time and the least expense of transportation, there will the greatest amount of business be centered—the greatest profits yielded, and the greatest dividends made. If our railroads cannot accomplish these points, others will, and thus in place of enlarging the circle of business with every new link in the iron chain of commercial intercourse, we shall only provide another means for the escape of that which may be desiring to seek another channel. A connection must be had—every interest requires it. The roads coming in at the east, cannot get business at New York, Philadelphia and Baltimore, destined for St. Louis, Alton and other points, to give it over to the roads running hence to the Mississippi, unless that business can pass this point as expeditiously and as cheaply as by any other route. So also, with the business of the west destined for the east. Neither Cincinnati nor any other city can be the Elsinore of America, and it is not right they should. The idea that every city and village has a right to impose its tribute, direct or indirect, on business or travel that is so unfortunate as to wish to pass that way, is obsolete, and it is well it is. It belongs to a past generation, and should be buried in the same grave with feudal despotism—and live only in the memory of the past. A city will be prosperous and flourishing in proportion to the enterprise of its inhabitants, the skill of its artisans, its means of intercourse with others, and the facilities it affords to that great stream of business, which is the life blood of the commercial world, flowing and reflowing through its various channels.

We say and believe, then, that a connection between the eastern and western roads *must* and *will* be had. It may be delayed but it cannot be defeated; and the sooner it is carried out fully and effectually, the more permanently profitable will be our investments both in business and railroads. If the additional charge of a few cents on the hundred pounds of freight will divert business from both merchants and railroads, hundreds of miles out of its natural course, it is plain that the subject of a perfect connection for

railroad purposes, is no slight nor unimportant matter.

Where then, should this connection be formed and how should the expense attending it be provided? These points we propose to consider separately and in detail.

First, then, where should the connection between our eastern and western roads be made. There are but three means of accomplishing this; first, on the river bank; second, through the heart of the city; and third, behind it on the north. The first two we shall discuss; the nature of the business to be transacted, its connection with river navigation, the necessity of ready access, and the impracticable character of the ground, render it unnecessary for us to detail the last.

**FIRST. THE RIVER CONNECTION.**—To unite the roads from east to west on the river side of the town, would involve the laying of a railroad track from the present depots of the Ohio & Mississippi, and the Cincinnati, Hamilton and Dayton railroads at the extreme west through Front or Columbia Streets, to the present depot of the Little Miami on the corner of Front and Baum Sts. The distance on this route by Front St. would be about 9,400 feet, the greatest part of which lies through a very valuable business section; the legitimate charges in the cost of such a route would be damages to private property by such an appropriation of a public thoroughfare and the cost of obtaining the right of way from the city, if paid for in money, or the value of the privileges accorded to the city for such right of way, if obtained in consideration of granting the city valuable immunities, such as free transportation of gravel, boulders, etc. Damages for deteriorating the value of private property have always been a source of great expense to railroads entering cities. Even parties who know themselves to have been benefitted by the location of the road near or in front of their property, never fail to clamor loudly for their share of damages, and they get it. Of course, in a long line like this, stretching about one mile and four-fifths, the property varies much in value; in many squares the land alone, exclusive of the buildings, is worth over *one thousand* dollars per foot, in such localities the damages would be greater than others. We think we shall be nearly right when we estimate the damages at \$100 per foot for the whole distance, which amounts to \$940,000 thousand dollars. A station man would be required at the crossings of about twenty streets. This item, although belonging in reality to the working expenses of the road, yet in a comparison of routes must be represented by the amount of capital the interest of which would pay the cost of maintaining them. We have then 20 station men at \$300 per year - - - \$6,000  
 \$6,000 per year, when interest is 6  
 per cent represents - - - \$100,000



The cost of obtaining from the city the privilege of occupying the road bed of one of its principal streets with a double track, we have no precedents for estimating. In the comparison of the two routes we shall, therefore, suppose it granted that it would be the same in both. The items to be charged to the river route then, exclusive of cost of track, would be as follows:

Claims for damages to private property.....	\$940,000
Capital represented by services of twenty station men.....	100,000
	<b>\$1,040,000</b>

The cost for the privilege of putting a track down on Front or Second Sts. from the Cincinnati, Hamilton & Dayton Railroad Depot to the Little Miami Railroad Depot, would be over \$1,000,000.

**SECOND.** We come now to consider the proposition to pass through the heart of the city. This could only be done by extending a tunnel under Sixth or some adjoining parallel street under the elevated plateau between the valleys of Mill and Deer Creeks. This would involve a tunnel about 6,500 feet in length. As it would be built entirely below the surface of the street, it would, therefore, not incommode the free transit of vehicles and persons, and could not, therefore, be charged with any damages to private property or rights. It would, therefore, be free from this item of cost, and as the item of privilege by the city authorities has been supposed to be equal in each case, we have no estimate to make of this in the comparison. It may be well, however, to state that as a track above ground occupies the street and interferes with the passage of vehicles and persons, while the track through the tunnel makes no obstruction to the use of the streets, there would be little ground for a legitimate charge on the part of the city for a privilege of such a character. We have then only to estimate the cost of masonry and excavation. The excavation would be through gravel all the way, and would be a source of profit, as the gravel taken from here could all be sold at fair market prices, which greatly exceed the cost of digging. We estimate, therefore, only the cost of masonry. This is variously estimated by different contractors at from \$30 to \$50 per foot. Take the highest figure \$50, and we have:

<b>COST OF TUNNEL UNDER SIXTH ST.</b>	
6,500 feet at \$50 per foot.....	\$325,000
The comparison, then, will stand as follows:	
Route through Front street.....	\$1,040,000
Tunnel route.....	325,000

Difference in favor of Tunnel route..... \$715,000

The difference in the capital account of the two routes would therefore be over \$700,000, and if we add liability to accidents and difference in the rate of speed, and the free and undisturbed use of track, and the constant annoyance of the efforts of interested persons to obtain the repeal of the privilege of using the public street, this sum will be greatly augmented.

#### WEST END OF THE OHIO AND MISSISSIPPI RAILROAD.

A very excited controversy has been going on at St. Louis, in relation to the St. Louis part of the Ohio and Mississippi Railroad. In this excitement the main difficulty has been rather overlooked, in hunting up the affairs of *Page, Bacon & Co.* This firm appears to have had a debt against the Company of \$1,158,000, which was first secured by a collateral stock to the amount of \$1,800,000; then by a Trust Deed, and then by a judgment! Rather sharp practice, one would think. But still, it is not intrinsically wrong, if the debt was really due; for it is perfectly just that the Company should secure its creditors.

But there is something beyond this of more importance to the public and the stockholders. That is, how came the road from Vincennes to cost double what it was contracted to be built for? And how came the Company to owe *Page & Bacon* such an enormous sum? for if the road had cost only what it ought to have cost, the Company would have owed *Page & Bacon* nothing. Here is the hinge of the whole matter, and the Board of Directors of May 1st, do not, we are sorry to say, throw much light upon that point. What they do give, we shall here notice.

In the first place, the contract with *H. C. Seymour & Co.* for the whole road was for the whole road was \$9,000,000, of which the part finally apportioned to the St. Louis end was \$3,000,000.

Now, is it not evident, that if that contract had been adhered to, the road would have been finished for that, except the addition of enough for rights of way and depots; for which \$500,000 was enough. The cost should have been, therefore, about \$3,500,000. Now let us see what it is. The Company Report:

Bona Fide Stock.....	\$1,821,700
First Mortgage Bonds.....	850,000
Second Mortgage Bonds.....	1,368,000
Page and Bacon's Debt.....	1,158,000

Aggregate..... \$5,197,700

Now, of this amount the Company lost, or rather there was diverted from construction, the following sums:

1st. Interest, and Temporary Loans.....	\$221,713
2d. Discount (20 per cent.) on \$1,368,000.....	273,600
2d. Discount City Bonds.....	25,000
4th. Agencies and Commissions.....	100,000

Aggregate..... \$620,313

Here is quite a nice sum to begin with. But let us proceed. The Directors say, that in consequence of raising the embankment across the American Bottom four feet higher than was originally intended, they were compelled to pay an extra cost of \$151,000.

Again, the St. Louis Directory proceeded to lay down a *third rail*, and make the grading and culverting to correspond from St. Louis to Sandoval, a distance of sixty miles. The amount they paid in this innovation, they do not tell, but, no doubt, this was one of the principal leaks.

But, to cover the whole, the Board who first quarrelled with *H. C. Seymour & Co.*, the original contractors, now quarrelled with *Sanger, Camp & Co.*, and after various negotiations, agreed to pay them \$497,000 to quit, when they would have been obliged to quit without anything.

We can now make a tolerable guess of the manner in which the cost of the road was so greatly increased, viz:

Interest, and temporary Loans.....	\$221,700
Discounts.....	298,600
Broker Commissions.....	100,000
Paid for unnecessary embankment.....	151,000
Paid for compromising with Sanger, Camp & Co.....	497,000
Paid for the third rail—say about.....	250,000

Aggregate..... \$1,517,700

Deduct this from the sum charged \$5,197,700, and we have \$3,680,700, or the real cost of the road including the extra machinery and the rights of way. But, there is nearly \$500,000 more to be expended; so that after all, if the above items had been saved, the cost would have been about \$4,300,000, and in reality it will be about \$6,000,000.

There is still, however, a mystery about it; for, in the general account, there is charged to "settlement" with *Sanger, Camp & Co.*, the sum of \$813,689, so that they must have received a great deal more than the items mentioned by the report show.

The fatal error of the St. Louis Directory is plain enough. It was in *changing the contract, requiring new work, and then throwing themselves into the hands of the contractors and the brokers.* The road will be made, but will cost double the estimates.

The pleasures of life are often made up of little incidents, arising from the good will and sympathy of others. Deprive the world of this, and there would be little left to care for. Since the fire in our office, we have received many pleasant proofs of the good will of our friends and subscribers, for which we return our warmest thanks. Not the least pleasant circumstance is the expression of good will on the part of those who are to us personally unknown; but whose warm hearts prompt them to courtesies the more pleasant, because they are unexpected and needed. But we took up our pen to acknowledge the receipt from *A. Marzoni, Esq.*, Publisher of the Florida Democrat, of a complete file of the present volume of the Record. The package of papers was accompanied with the following pleasant little letter:

"Sincerely sympathizing with you for your late calamity, I have the pleasure to inform you, that I have this day mailed to your address a complete copy of the Third Volume of the Record, from number one to number thirteen inclusive."

We have not the pleasure of a personal acquaintance with *Mr. Marzoni*, but we can vouch for one thing, that he is a gentleman of kind heart and liberal spirit. He has our warmest thanks.



## Railroads.

### LOUISVILLE AND SANDUSKY RAILROAD.

We have before us the First Annual Report of the President and Directors of this Company. We have had no opportunity of noticing it before; because,—we have never seen the report.

The object of the company, as stated in the report, is to construct a *direct* line of railroad, from Sandusky Bay to the Falls of Ohio.—This is to be accomplished by *four* railroad companies, which have entered into a contract for that purpose. These are the *Mad River and Lake Erie railroad Co.*; the *Eaton and Hamilton railroad Co.*; the *Sandusky and Louisville railroad Co.*, and the *New Albany and Sandusky Junction railroad Co.* The companies mutually guarantee each other.

The following extract, written in sufficiently glowing terms, will show the reader the route of the road, and what expectations are formed of it:

"But, whether we regard our line as part of a direct channel of communication with Europe, or with our own Northern Atlantic ports of commerce, *where*, upon the entire map of the Great valley, can there be found another line, so direct, so central, so short, so feasible, so evidently indicated by nature, and so well calculated to answer the necessities of the immense trade and travel, which is destined through all future time to pass over it, as the one, for the construction of which we are associated? Let him who doubts, take an authentic map of the United States: let him trace thereon a direct line from Buffalo through Lake Erie to Sandusky: thence in the same general direction, pursue the line of the Mad River Road, 90 miles to Huntsville: thence in a continued direct line, mark the route of the two new Roads through the cities of Piqua and Eaton in Ohio, across the State line, and thence through or near Brookville, Versailles, North Madison, South Hanover, New Washington, Charlestown and Jeffersonville to Louisville and New Albany: Thence let him run his eye down the line of the Louisville Road to the city of Nashville; and thence on the same extended line, let him trace the route of the "New Orleans, Jackson and Great Northern Railroad," through the towns and cities of Franklin, Columbia, Chickesaw, Aberdeen, Kosciusco, Canton, Jackson and Gallatin, to the city of New Orleans; the whole forming one unbroken and practical air line of Railroad, from the Lake to the Queen City of the South, 960 miles in length, and passing in its whole extent through "the very heart of the Garden of the World," intersected in its transit by numerous tributary branches, leaning to almost every portion of the Southern and Western States; and, without taking into

account the boundless sources and objects of Railroad traffic, which crowd the rich region through which it passes, he will at once acknowledge the wisdom of its selection, as a great international thoroughfare between the North and the South, and unhesitatingly assign it, the highest rank among the best paying Roads in the United States."

The report gives the following account of the commerce of Sandusky:

"Its commerce for the three years, commencing 1851, as taken from the official returns, was as follows:

	Val. of Costwise Imports.	Exports.	Total.
For 1851.....	\$13,917,564	\$4,755,729	\$18,673,293
For 1852.....	29,068,094	9,780,314	38,848,408
For 1853.....	30,048,744	11,435,754	41,484,498

"There are engaged in carrying on this commerce 16 Steamboats, 34 Propellers, and an indefinite number of Brigs, Schooners, &c., estimated to be of the value of \$3,125,000. Of these imports, much the largest portion were destined for points at and below the Falls of the Ohio—to at least ten of the Southern States above enumerated in this Report."

We would not check the sanguine hopes of our Sandusky friends; but we are obliged to say, that *some* things they have in the Report are rather *fast*. For example, the following sentence on the Ohio river:

"But its great and paramount connection, as has already been seen, is at the Falls of the Ohio, 150 miles below Cincinnati, on a river, whose navigation above that point, for large boats, has been interrupted for nearly two-thirds of the past year, by ice or shoals."

If this means anything, it is, that the river below the Falls is navigable, when that above is not. Now, some of the very worst bars on the Ohio, are hundreds of miles below the Falls. In a dry season, when a large boat cannot run above the Falls, it cannot below. We have been on the lower Ohio, at low water, and know this fact.

So, also, of the following paragraph:

"Passengers arriving by thousands, at the Falls from the South and West, can be forwarded by this route to Sandusky on their way East within eighty minutes of the time now occupied for the transit, from the latter point to Cincinnati; within less time than that heretofore usually occupied in sending them from Cincinnati to Cleveland, and from six to eight hours, before they can ordinarily reach Cincinnati by Steamboat!"

Now, if the Louisville and Sandusky Railroad were actually made, it would *not* be one mile nearer by that route from the Falls to New York, than it would be from the Falls to New York, through Cincinnati and Baltimore, by the *present* road, and these may be shortened considerably. Whoever goes to Sandusky must take the Lake Shore Road, by the Erie or the New York Central.

Too sanguine calculations rather embarrass, than encourage an enterprise. If the Louisville and Sandusky Railroad succeeds, it must be on its local merits chiefly. We do not see why, in so good a country, it should not be a very good line.

In regard to the part of the line to be constructed by the Louisville and Sandusky Company, the following is a report of the financial condition:

"The estimated cost of the entire eighty miles of road ready for running, including Engineering, Depot Grounds, Rights of Way, incidental expenses, etc., is \$1,232,000, or \$15,400 per mile.

The subscriptions to the Capital Stock by individuals and contractors are..... \$576,500

[This includes the amount—agreed to be taken—by contractors, not included in the late Report of the Treasurer to the Auditor of State.]

First Mortgage Bonds to be guaranteed by the New Albany and Mad River Companies..... 800,000  
\$1,376,500

"It is confidently believed that in a due appreciation of the character of the improvement, and under the influences hereinafter referred to, the company will be able to realize the *par value* of the first mortgage guaranteed bonds—in which case, on the completion of the Road proper, there will be a surplus of \$144,500, applicable to the erection of Station Houses, Depots and Running Machinery for the equipment of the Road. Adequate provision has been made for the issue of second mortgage bonds for the payment of contractors, as well as to supply any deficiency that may exist and provide ample machinery for the large business it must command."

### CAIRO AND FULTON RAILROAD—ARKANSAS DIVISION.

We have received and read with attention, the proceedings of the Second Annual Meeting of the stockholders of this Company, held at Little Rock, Arkansas, May 7th, 1855. We look upon this road as one of great interest and importance. Arkansas itself, considered as a state, embraces some interesting features. Its population at various censuses was as follows:

Date of Census.	Population.	In. per ct.
In 1830.....	30,388.....	—
In 1840.....	97,574.....	221
In 1850.....	269,897.....	105
In 1854 (State Census).....	307,091.....	46

Its agricultural products for the year 1854, were valued at \$24,813,611.

Arkansas is not as rapidly filling up as many of the newer states. But this will not be a matter of surprise when we consider the little facilities that its precarious river navigation affords for market communication, and the little that is known of its mineral wealth. Railroads are the only means of developing these resources, and affording that communi-



cation which is absolutely necessary to agricultural prosperity.

The report of the directors reviews the present position of the road, and shows the means proposed to be employed in its construction. The report says :

"On the 12th of October last, in obedience to a resolution of the Board of Directors, the report of the engineer and its accompanying papers were transmitted to the Executive of the State, for his information and that of the General Assembly, and by him transmitted to that body, as accompanying documents to his biennial message. This was done by the Board of Directors in the confident belief that such disposition would be made of them, and such legislation had, respecting the fixing of the line of the road, designated in the act of Congress of February 9th, 1853, granting alternate sections of the public lands to the State, to aid in the construction of this road, as would make them available, to either this or some other company, for that object.

"The session was drawing to a close without any definite action having been had towards accepting this survey and fixing the route of the road ; and the time, mentioned in the act of Congress making the grant, for the transmission to certain land offices of the U. States, of a copy of the survey of the route of the road, being then about to expire ; and with the view to avoid all questions, as to a forfeiture of the lands granted by Congress, and reserve to the State the advantages thereby contemplated, this Company, through its executive committee, on the 22d of December last, passed an order, and therewith caused to be transmitted copies of the survey of the route of the road to the Governor ; and also, upon his application, a list of the stockholders of the company, to be disposed of as he might deem best to protect the interests of the State, and the rights of the company, therein agreeing and binding the company, upon being reimbursed by the State for all their expenditures, incurred in making the survey of the road, to surrender to the State its franchises.

"On the 23d of December, 1854, these copies of the survey were forwarded by the Governor to the local land offices respectively, and to the General Land Office at Washington city, as a compliance with the act of Congress making the grant.

"On the 4th of January, 1855, the Executive of the State, made a special message to the General Assembly, upon this subject. Afterwards, on the 16th of January, 1855, an act was passed by the General Assembly, designating and fixing the line of this road, and proposing to grant to this company, upon certain conditions, the alternate sections of land along the line of the road, granted to the State by the said act of Congress.

"Although the act of incorporation author-

izes the President and Directors of the company to accept any supplemental or amendatory act of the General Assembly of this State, which may be passed with the view to facilitate the operations of the company, or for any other purpose, it was not deemed expedient to convene the Board of Directors for that object, believing it to be a matter that rightfully belonged to the Stockholders to decide.

"In August, 1852, a bill passed the House of Representatives, in Congress, granting to the State of Arkansas and Missouri, respectively, the right of way through the public lands, 'to aid in the construction of a railroad, from a point on the Mississippi river, opposite the mouth of the Ohio, in the state of Missouri, via Little Rock, to the Texas boundary line, near Fulton, in Arkansas, with branches from Little Rock to Fort Smith, and to the Mississippi river, with the right to take necessary materials of earth, stone, timber, etc., for the construction thereof ; therein further granting to said States, for the purpose of aiding in making the said railroad and branches, every alternate section of land, for six miles in width, on each side of said road and branches.

"During the session of the Legislature of 1852 and '53, application was made for a charter to build a railroad, on the route mentioned and described in said act of Congress ; and on the 12th of January, 1853, the Cairo and Fulton Railroad Company was incorporated, thereby authorized and empowered to survey, locate, construct, alter, maintain, and operate a railroad upon the route of the main line of road mentioned and described in said act of Congress, namely, 'From a point on the Mississippi river, opposite the mouth of the Ohio, in the State of Missouri, by way of Little Rock, to the Texas boundary line, near Fulton, Arkansas.' Subsequently, the bill above referred to passed the House of Representatives, also passed the Senate of the United States, and became a law on the 9th of February, 1853.

"In April, 1853, the Cairo and Fulton Railroad Company was duly organized under said act of incorporation. Subsequently, stock subscriptions were made by counties of portions of their internal improvement fund, created by said act of Congress of September 4th, 1841, granting 500,000 acres of land to the State, for purposes of internal improvement ; and of the act of the Legislature, distributing the proceeds thereof among the several counties, and by citizens mostly residing along the line of the road, sufficient to pay for the preliminary surveys of the road, and other necessary expenses.

"In this connection the Directors call your attention to the fact that you have the indisputable right of way through the government lands, and those belonging to the State,

throughout the entire length of your road, as well as by special relinquishments from individual property holders, from which you cannot be divested ; besides the act of Congress, granting the alternate sections, distinctly provides that these lands shall be applied in the construction of said road, and shall be disposed of only as the work progresses, and in the following manner, that is to say : That a quantity of land, not exceeding one hundred and twenty sections, included within twenty continuous miles of said road, may be sold ; and when the Governor of the State shall certify to the Secretary of the Interior, that twenty miles of said road is completed, then another like quantity of land may be sold ; and so on, from time to time, until the road is completed. Thus an identity of interest is established between the company and the State—the prosperity of one is the index of the success of the other."

By the following statement from the report of the Treasurer, William B. Wait, Esq., it will be seen that the amount of moneys received by the company, up to the date of the report, was \$23,847 94. This has been derived from the following sources :

From first installments on 9,037 shares, amounting to \$224,875, of five per cent., and extra payments thereon, and from second installments.....	\$22,713 64
Messrs. Hughes and Russell.....	600 00
Sale of horses, oxen, wagons, part of outfit of engineer corps.....	534 30
	<b>\$23,847 94</b>

#### EXPENDITURES.

Engineer department, outfit and other expenses of the survey of the road.....	\$19,922 18
Agents' salaries and contingent expenses.....	3,915 76
	<b>\$23,838 94</b>

Amount due by agents and others. \$ 2,773 42	
Amount due on second installment, not collected.....	3,651 25
	<b>\$6,424 67</b>

	<b>\$6,887 67</b>
Sundry claims due by the company.....	6,469 00
Balance in favor of the company.....	<b>\$ 418 67</b>

The whole length of the line in Arkansas, from the Missouri line to Fulton, is 301 miles, passing through thirteen counties. In these thirteen counties there are 247,701 acres under cultivation, the annual agricultural products of which amount to over eight millions of dollars.

"Another element of interest, of great and increasing importance to the road, is the great abundance and variety of valuable minerals within the influence of the road, combining all the necessary ingredients entering into the manufacture of iron ; some of which are of unsurpassed richness and value. Fuel, ore and limestone lie, in close proximity to each other, and from the mouth of the mine can be thrown into the furnace. They are thus briefly described by an eminent practical geologist, who has recently examined the country : 'We have iron ore on the surface, and coal in immediate contiguity, rich hematite iron ore, and an extensive limestone formation, in which is found lead, copper, zinc,



manganese, etc. Near the capital of the State we have the argentiferous lead mines, so well known for the richness of their ore in silver; and a valuable granite formation, with slate of the Talcose and Grauwacke varieties, some of which may become valuable for roofing and other purposes. Contiguous to this there is amygdaloid, kaolin, and much useful sand and limestone, including the novaculite, (the celebrated Arkansas whetstone.) In this formation also is found minerals of the precious as well as the useful varieties. Coal exists along the river, which may hereafter be a profitable export on the road. There is also found, in connection with it, fire and potter's clay, building stone of an excellent quality, and rich agillaceous iron ore. Further south, the road passes near the formation in which is found argentiferous lead, sulphuret, and other ores of copper, with highly valuable magnetic ore.

"The entire cost of the road, as per engineer's report, with track laid and prepared for business, is estimated at \$6,373,802, or \$21,175 per mile, with full equipment of rolling stock, depot buildings, station houses, machine shops, for repairs, etc.

"The preliminary surveys of your road were extended from our northern boundary, under the Cairo and Fulton Railroad Company of Missouri, by Captain J. S. Williams, as their chief engineer; completed in January last, and approved by the Board of Directors of that company.

"This is a very remarkable line, and will cost about \$6,000 per mile less than the Arkansas portion. The total cost is \$1,154,539, or \$15,925 per mile, with full equipment in every respect, as that of the Arkansas division. The president of that company, in his communication to the board, transmitting the report upon the surveys, says: 'I call your attention particularly to the directness of the road, its very gentle curves and light grades. The length of the line is 72 miles 2,840 feet; the distance by air line is 71 miles 680 feet; the heaviest grade is 42 feet per mile, and that in only one instance, for a distance of 2,500 feet. There are only two curves, and these are of 11,460 feet radius.'

The stockholders at their meeting passed a resolution that the act of the General Assembly of the State of Arkansas, approved January 22d, 1855, "prescribing the mode of procedure in obtaining the right of way for railroads in this State," be and the same is hereby accepted and made a part of the charter of the Cairo and Fulton Railroad Company, so far as the same is applicable.

Authority was also given to the directors to consolidate with the Cairo and Fulton R. R. Co., of Missouri, or to enter into any agreement between the two companies which would insure the early completion of the road.

We regard this road as important in many senses. It is vastly important to the country through which it passes, as the only means by which it may be developed. The road is also an important one in the line between the Atlantic and Pacific states. As such its progress must be viewed with interest.

#### PENDLETON RAILROAD.

We learn from a letter of the Comptroller General of South Carolina, that he has at last decided the question of the State subscription in favor of the road. In his letter he states that his own decision in the matter might have been different; but that the opinion of Genl. Hayne, the Attorney General, had induced him to make the transfer of the stock, (\$35,000.)

We give the opinion of Genl. Hayne dated June 6. It is a plain and conclusive document.

From the facts submitted, it seems that the corporation created by the Act of the Legislature, passed in December, 1851, has been organized, and that a President, Directors and Secretary have been elected, and have assumed to act for the Company, under the name and style as directed by the Act. The President now applies for the aid provided by the Act of the Legislature, passed December, 1852. The Company appears to be a subsisting corporation, and to be that designated in the Act of 1852.

The aid provided consists of a subscription on the part of the State of forty-two thousand five hundred dollars to the capital stock, to be paid in Stock held by the State in the South Carolina Railroad Company. This subscription is to be made "whenever satisfactory proof is produced to the Comptroller General, that the sum of \$85,000 is duly subscribed by responsible persons to the capital stock of the Pendleton Railroad Company, and that said Company is duly organized." The due organization of the Company being assumed, the question is—has \$85,000 been subscribed to the capital stock by "responsible persons?" Upon this matter of *fact* I shall not pretend to give an opinion. I will state only that the corporation known as "The Blue Ridge Railroad Company" is in *law* "a person," and that a subscription by that corporation, if the Comptroller considers it "responsible," should be included in the estimate.

If the due organization of the Company and the \$85,000 of subscription has been proved to the satisfaction of the Comptroller, he, in my opinion, has no right to withhold the subscription of the State.

As to the *payment* of the subscription, that is to be made (to the amount of \$20,000, the sum now claimed as due,) "when satisfactory proof shall be produced to the Comptroller General, that the sum of \$20,000 shall have been paid by the stockholders and expended in the construction of said road."

I again decline to decide on the matter of *fact* but as a *question of law*. I am of opinion that the Blue Ridge Railroad Company being "a stockholder," the payment by that Company, as such stockholder, would be, so far as paying is concerned, a compliance; and that the expenditure by said Blue Ridge Railroad Company on behalf of the Pendleton Railroad Company, and acting by their authority in the construction of a road from Pendleton to An-

derson Court House, would be a compliance, so far as expenditure is concerned.

Being satisfied of these facts—the payment and expenditure of \$20,000—the Comptroller is bound to transfer and deliver, to the Pendleton Railroad Company the Stock of the State designated by the Act of 1852, as the medium of payment of the State subscription.

I have been thus particular in analyzing the act which imposes the obligation of aid on the State, because I am aware that certain peculiar circumstances exist in this case, and are known to you personally, which, in your view, relieves the State from the obligation incurred by the said act.

You consider that certain arrangements entered into between "the Blue Ridge Railroad Company and the Pendleton" have virtually merged the latter in the former, and that to subscribe on the part of the State to the *Pendleton Road* is but to add to the subscription of the State to the *Blue Ridge Road*, and that to transfer stock to the *Pendleton Company* is, in effect, to grant additional aid to the *Blue Ridge Company*. That such will be the probable result is certainly sufficiently apparent; and, it may be, that such a result was not contemplated by the Legislature. I can infer the *intention* of the Legislature, however, only from what they have *done*. I must look to the will of the Legislature as it is *expressed*. By the Act of 1852, the Legislature declares that the State will subscribe to a company on certain terms, and directs that payment shall be made in a certain manner, and on certain conditions. The company, so far as appears, have incurred no forfeiture, and the terms and conditions have been complied with.

Even though I were assured that the result was one which the Legislature would not have sanctioned had it been foreseen, this could not influence my conclusion as to the effect of what has been done. But, from the fact that the Pendleton Railroad Company had disclosed, by their report to the Legislature, the nature of their contract with the Blue Ridge Railroad Company, before the action of the Legislature in behalf of the latter, it is by no means clear that it was not the intention of the Legislature that the latter Company should, in point of fact, enjoy the benefit of the aid afforded in both forms. And it is pretty certain that, in the opinion of the last Legislature, the Blue Ridge Railroad scrip was not less an equivalent for the amount subscribed by the State, than the scrip of the Pendleton Company.

I may add that I can perceive no possible motive for providing that there should necessarily be two tracks of railroad, under separate management, between Pendleton and Anderson Court House.

The action of the Legislature has, I think, been taken, with the means of information before them, as to the precise manner in which the Pendleton Railroad Company intended to carry out their purposes, and how far they proposed to avail themselves of the assistance of the Blue Ridge Railroad Company. The Legislature, with this information before them, not only did not intimate any dissatisfaction with the Pendleton Company, or any desire to withhold the promised aid from them, but proceeded to prescribe the extent of aid, and the mode and manner of rendering it in regard to the Blue Ridge Railroad Company.

The Comptroller should take care that the expenditures now estimated in the Pendleton Road should not be included in estimates of



expenditures for which the Blue Ridge Railroad receives credit, when that Company applies for the State subscription to the Blue Ridge Railroad. The Blue Ridge Railroad Company, acting as agent of the Pendleton Company, is distinct from the Blue Ridge Railroad Company acting in its own behalf, both in paying and receiving.

#### THE RAILROADS OF TEXAS.

It gives us much satisfaction, says the Austin State Gazette, to view the exertions of our citizens in favor of railroads, and we think that, at the present time, there is a healthier public tone on the subject than at any past time.

In the extreme north, we learn that Mr. Geo. Wright has been addressing the citizens in favor of a road to connect at Fulton, Arkansas, with the Cairo railroad. At last accounts he had addressed the people of the counties of Collin, Grayson, Fannin, Lamar and Red River. The subscriptions taken up amount to over \$300,000.

At Marshall, the account we receive is that some twenty-five miles of railroad is to be put under contract immediately, and the new company state they have now on hand in cash \$140,000.

The accounts from Houston are favorable. We have already stated that twenty miles of road, being that portion of the route lying between Houston and Cyprus Creek, is under contract, and the iron for the track will shortly be shipped from the North.

The Harrisburg Railroad will be finished to Richmond in a short time; all the iron we believe being now in Texas.

The officers of the Austin and Gulf Railroad are about making a spirited canvass for stock. We learn that sufficient means will be contributed to make the road without doubt. It has been mentioned to us that a company stand ready to make the whole road in two years on a pledge of a subscription amounting to five thousand dollars to the mile.

A convention meets at Columbus on the 22d inst., to take into consideration the feasibility and expediency of effecting an immediate connection with the Harrisburg Railroad between Richmond and Columbus, and we doubt not that it will be respectably attended and represent a large amount of capital.

A convention also took place lately at Hallettsville, at which it was agreed to arouse public attention to the necessity of a railroad west of the Colorado. The movement appears to be made by many practical, intelligent and public spirited citizens. Their efforts must be crowned with success, if there is anything like that harmony and concentration of effort which ought to prevail at this time in that rich and promising country, whose only drawback to settlement is the want of facilities of conveyance for heavy freight.

We think then, it is clear that the people of Texas are showing themselves desirous of entering upon the making of railroads, and that individual enterprise, with the aid of the State, appear to be the most desirable, as it is the truest and safest policy to pursue.

#### MILWAUKEE AND WATERTOWN RAILROAD.

It gives us great pleasure to state that the Directors of the Milwaukee and Watertown Railroad Company yesterday let the contract for the extension of their road to Columbus, Columbia County, on very favorable terms, to be completed and ready for use by the first of

July, 1855. The contractors are Messrs. A. & L. Graham & Scott, men of large experience and ample means, who have already a heavy force of men and teams in our state, and intend to put them to work immediately upon this new job. The contractors are to do all the grading, bridging, masonry, etc., and the Company to furnish the iron; and the cost of the road, complete, will be not far from \$18,000 per mile. This is justly regarded as a very favorable contract, and we congratulate the Company upon their success.

The grading of this road between Oconomowoc and Watertown is nearly completed, the iron for the track has all been purchased, and is now on its way from New York—and the road will be open to Watertown some time in August next. It has already exceeded the anticipations of its most sanguine friends, in the amount of business which it has done, and every link added to it must largely increase the travel and traffic which seek this avenue to our city.—*Milwaukee Sentinel*, June 6.

#### THE OHIO AND PENNSYLVANIA RAILROAD.

The injury done to the road by the rain on Saturday night was more serious than we at first supposed. The bridge at Big Sewickley is not all down, but it is in so shattered a condition, that it will have to be removed. It was a solid stone structure, having one arch, thirty feet wide, and thirty-five feet high. The largest part of the arch and the abutments on the upper side are gone. The water rose some fifteen or twenty feet, overflowing the bottoms to a great extent, and sweeping everything before it. A temporary wooden structure will be erected, and probably finished to-day, for the passage of cars. We understand that the stone arched bridge will not be replaced, the foundations resting on sand being very insecure, but that a substantial wooden bridge, at least sixty feet long, and allowing ample room for the water, will be erected. At Lakeville, also, the bridge is very much injured, and cars could not pass it on Monday. The trains, however, run with tolerable regularity, and very little detention is experienced. A large force, under the lead of active officers, is at work, and the public will suffer no inconvenience probably after to-day.—*Pitts. Gazette*, June 20.

PHILADELPHIA AND READING RAILROAD.—The following is the business of this road for the month of May, compared with the same month last year:

	1855.	1854.
Received from Coal.....	\$387,997 33	\$273,270 77
Received from Merchandise..	28,488 15	19,937 48
Received from Travel, etc....	33,208 55	26,173 35
Total.....	\$449,694 03	\$319,381 50
Tran'sportation, Roadway, Du'm- page, Renewal Fund, and all charges.....	184,424 90	168,585 93
Net profit for the month.....	\$265,269 13	\$150,795 67
Net profit for previous five months.....	711,817 37	435,953 60
Total net profit for 6 moths..	\$977,086 50	\$586,449 27

#### SOUTH CAROLINA RAILROAD.

We have the pleasure to present below, a statement of the earnings of the Railroad for the first five months of the present year, compared with the business of the two preceding years. The exhibit is a very gratifying one, showing the sure and large increase in the business of our Road.

	1853.	1854.	1855.
January.....	101,713 23	112,265 15	113,531 88
February.....	125,768 63	129,113 21	125,764 97
March.....	149,141 77	148,651 33	165,215 62
April.....	97,268 47	129,731 85	140,571 79
May.....	78,256 04	93,460 98	124,319 06
	532,148 14	612,226 43	669,423 32

Charleston Mercury.

## Miscellaneous and Mechanical.

### STEAM FIRE ENGINE.

The superiority of the steam fire engine to every other is pretty well established here in Cincinnati, and is becoming so in other large cities of the Union. The arrival of the "Young America" in Philadelphia, produced quite a lively interest and a disposition to try its power, or, as the boys would say, to try the machine. The steam engine was brought in competition with three of the old but celebrated Philadelphia engines, the "Diligent," the "Weccacoe," and the "Assistance."

The account of the trial and some further remarks, we subjoin from the Philadelphia Inquirer:

1. "The capacity of the steam-engine, to be in readiness to extinguish fires as soon as the hand-engines.

2. "Her ability to throw heavier streams, and a longer distance.

3. "Her power of continuation or persistence, as compared with the other engines."

"We believe it is conceded that more time is necessary to get Young America ready, than the hand-engines, much less, however, than is generally supposed. She exhibited steam in three minutes after the torch was applied to the fuel in the fire-chamber, and within nine minutes she was prepared for service. The hand-engines, however, have steam up all the time, so to speak—that is to say, the members are constantly on the tiptoe of expectation, and thus available, as soon as their apparatus can be drawn to the scene of action, and obtain a supply of water. The advantage, therefore, in this respect, is in favor of the hand-engines.

"In relation to the comparative ability of the two, the following facts are stated. The water was thrown from one inch nozzle.

Steam Engine.....	172 feet.
Diligent Engine.....	155 "

Difference..... 17 "

The perpendicular height reached, from a one inch nozzle, was as follows:

Diligent Engine.....	133 feet,
Steam Engine.....	120 "

Difference..... 13 "

"The difference here, it will be seen, is slightly in favor of the Diligent, but she is the best of her class in Philadelphia, and can scarcely be taken as a fair specimen. Her members, too, are active and untiring, and exhibit the deepest interest in her performances. The Assistance, a first class engine, was disabled by the bursting of her air chambers, immediately after the commencement of the struggle, and hence was withdrawn; while the Waccacoe, a second class engine, threw a stream a hundred feet high, if not higher.

"In relation to the third point, the power of continuation—the Young America exhibit-



ed great superiority. She threw a steady stream for nearly half an hour, and threw four streams through a three-quarter inch nozzle, and each to a distance of about one hundred feet. This is a matter of the utmost importance. The ordinary hand engines can play but a few minutes, when a pause takes place, and the fire acquires a new impulse. But the steam-engine can work on steadily, with immense power, and hence can be of the utmost service. Perhaps it would be well to unite the two systems—a certain number of hand-engines and a certain number of steam engines."

At the trial of this engine at the Mechanics' Institute in this city, the Young America threw a stream horizontally to a distance of 229 feet 4 inches, and measuring to extreme point reached by the water after striking the ground, 240 feet.

When tested for perpendicular height, it threw a stream 150 feet high. Both these results greatly exceed those obtained at Philadelphia. Something may be due to the quality of the fuel, and too great haste to begin to throw.

#### THE NEW BRICK.

Our readers will remember a notice in our paper some time ago, of a new style of brick, made of a mixture of sand and lime, compressed with great force into a mould of suitable shape. An objection has been raised, with some degree of plausibility, to this style of building material, on the ground that these brick will harden to only limited depth and not throughout their whole thickness. The objection may have some force in the case of brick manufactured late in the fall and frosty season; but we see no reason why crystallization should not take place in ordinary weather, as thoroughly in these bricks as in the walls of a gravel house, or in the joints of an ordinary rubble wall.

A gentleman experienced in the manufacture of this building material, thus explains the hardening process. "When the fact is more generally known, that in every 106 pounds of limestone, there are 44 pounds of carbonic acid, and that the process of burning this lime causes this carbon to pass off, and fits it for hydration (slacking,) and when it is known that this remaining 56 pounds of sulphate of lime, when hydrated and mixed with sand or gravel, according to the quantity of each, has an affinity for carbon, and that one part in every hundred of the atmosphere is carbonic acid gas, the "intelligent" men will understand why it is that brick of such a compound, when subject to frost before becoming thoroughly dry, or if made with old lime, can never become very hard, while those made in the early part of the season, and through the summer, though tender, will do to be laid in three days after making, and become hard

enough the same season, to bear the burden of not only 30 or 40 tons, but many times that amount if necessary, and, in a few years, instead of crumbling down, become equally hard as the several particles of sand or gravel of which they are made.

"When it is generally understood that the carbon in the atmosphere more readily communicates itself to the hydrated lime when moist, all men know why it is that every time it rains upon the brick, after being once thoroughly dry, only tends to make them harder, when again dry.

"I have not seen Mr. F. since he made his discovery; neither do I know if these are his views. With me they are facts, obtained from ten years actual experience."

#### SMOKELESS FURNACE.

We have during the week inspected an entirely new arrangement of steam boiler furnace, in action, on a twenty-five horse power boiler, at the granaries and flour mills of Mr. Edward Gripper, Winchester wharf, Southwark. The principal of construction is that of mechanical motion applied to the bars, but different from anything yet introduced. Every alternate bar is so connected with a cross-piece at each end as to form one entire movable frame, which is connected by a gearing with the motive power. The motion given to it is angular; first, the bars rise very slowly about an inch above the stationary ones, they then move gradually in a lateral direction towards the bridge, again sink in a vertical direction about an inch below the other bars, and then move laterally forward to their original position. What are termed the stationary bars are not fixed as usual, but hung in such manner as exactly to balance the vibrating frame with the load of fuel which it has to move, thus taking but little power from the engine to keep them in motion. The fuel is fed through a hopper and regulating incline planed, and the whole is self-acting, requiring but little attention from the stoker. We were informed that this apparatus had been in constant use about six months, that no difficulties whatever arose from the mechanical motion; there was an entire absence of clinker, nearly perfect combustion of the fuel was effected, and during our visit not a particle of smoke was visible from the chimney. Mr. Gripper estimates the saving of fuel alone at about 10 per cent., besides numerous other advantages.—*London Railroad Journal.*

#### A NEW SPRING.

A valuable Mineral Spring has been discovered on the line of the Seaboard Railroad, in Virginia, a few miles beyond Suffolk. A colored man named *Ralph Nelson*, was digging a well on his own farm, when he struck a spout of water which caused him to get out of the pit immediately. It filled the well and soon inundated the whole premises, so that he was obliged to dig a trench to carry off the waste water, and it has continued to run ever since. It was not the pure fluid he expected, but on chemical examination it was proved to possess medicinal qualities, its ingredients being alum, potassa, iron, magnesia, phosphate, lime and ozotized organic matter. In describing this spring, the *Norfolk Argus* says:

"It is a remarkable fact that Professor Rogers, of the University of Virginia, stated some time since that the mineral waters of the mountains would find an exit in the lower country. If this discovery and that of Jordan's Spring, this side of Suffolk, should prove a verification of so important a geological theory, it is still more remarkable that these two springs, only fifteen miles apart, should possess respectively the properties of the White Sulphur water and the Alum water as distinctively as those famous springs in the mountains of the State maintain in their different characteristics."—*Char. Courier.*

#### FLORIDA INDIGO.

Indigo was formerly manufactured in Florida, for which the climate and soil is well adapted. It grows wild upon the barriers in almost every portion of the Peninsula.—When cultivated by the English in this country, the Indigo of Florida was considered in London market superior to all others, except that of Caraccas. The manner of cultivating and manufacturing advantageously is as follows:

The seed, which is very small, is soaked for some twelve hours, then mixed with ashes or sand, and sown in drill rows, about eighteen inches apart. The time for sowing in Florida is from the middle of March to the first of April. When the young plant makes its appearance, it resembles white clover, and must be carefully weeded, and the earth kept loosed about its roots. Three weedings are sufficient to carry it up to the first cutting, which commences when the plant begins to bloom, say about the first of July. The plant is so easily injured by the sun after it is plucked, that the cuttings should be in the afternoon. As fast as it is cut, which is done by a sickle, it is carried to a vat called the steeper. This vat is made of plank, is watertight, and varies in size according to the extent of the operations of the planter. The steeper is filled with cuttings immersed in water.—Planks with weights upon them, are then placed on top to keep the cuttings beneath the water. In this state steeping is continued for about ten hours, or less, according to the temperature of the water. When the water assumes an olive color, it is drawn into the "beater," another vat, placed alongside and beneath the steeper, and connected by a tube, and fastened with a valve or spigot. The liquid is now churned by hand or with machinery, until it become lighter in color, and a blue pécua begins to make its appearance. From time to time lime water is thrown into the beater during the "churning." After the pécua spoken of distinctly appears, the water is suffered to remain about four hours for the Indigo to settle. It is then drawn off, the sediment placed in bags, and hung up to drain. When drained sufficiently, it is placed in boxes to dry, under gentle pressure; and when dried firm, it is cut up into square cakes and placed in the shade, to become completely dried by evaporation. The shorter the steeping and the less the beating, the lighter will be the color of the Indigo. The Indigo plant will yield two or three cuttings a season, and one hand will cultivate about three acres, the result being from 175 to 200 lbs. of the article. Unlike sugar cane or corn, the Indigo requires no expensive machinery. Where it is made only for domestic use, barrels are used for steeping and beating.—*Florida News.*



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHARES.	OFF'D.	ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872.....	7 1872					
Baltimore and Ohio.....	Transferable. Taxed.....	6 1885		79½	100	44	44
Do do.....	Coupons. Not Taxed.....	6 1875					
Do do.....	" ".....	6 1880					
Do do.....	" ".....	7 1860					
Do do.....	" ".....	6 1885					
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866		98	50	42	
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866					
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870	98	99		97	98
Chicago and Mississippi.....	1st " ".....	7 1862					
Do do.....	2d " ".....	7 1874	65				
Chicago and Aurora.....	1st " ".....	7 1866					
Cincinnati, Newcastle and Mich.....	Real Estate.....	7 1859					
Cleveland, Columbus, and Cincinnati.....	1st mortgage, convertible.....	7 1859			100	109½	110
Do do.....	No mortgage, convertible.....	7 1855					
Cleveland and Mahoning.....	" ".....	7 1861					
Cleveland, Painesville, and Ashtabula.....	1st mortgage.....	7 1861			100		
Do do.....	2d " not convertible.....	7 1861					
Cleveland and Pittsburgh.....	1st " convertible.....	7 1860				55	55
Do do.....	1st " 2d sec. convertible.....	7 1873					
Cleveland and Toledo.....	1st mort. not conv. 73.....	7 1863	93	94	50	90	91
Cleveland, Zanesville, and Cincinnati.....	" " till 1855.....	7 1867				75	76
Cincinnati, Hamilton and Dayton.....	2d mortgage.....	7 1860	88	90			
Do do.....	1st mortgage, real estate, conv.....	10 5 & 10 y's	27	30			
Cincinnati, New Castle and Michigan.....	" " " ".....	8 1859	44½			15	15
Cincinnati Western.....	2d " " " ".....	7 1862	65	68		40	45
Cincinnati, Wilmington and Zanesville.....	Real Estate.....	8 1859	40			12	15
Cincinnati, Indianapolis and Chicago.....	1st mortgage, convertible.....	7 1862	75	76			
Cincinnati and Chicago.....	2d " " " ".....	7 1862	60	61			
Columbus, Piqua and Indiana.....	1st mortgage, convertible.....	7 1859	80			93½	100
Do do.....	2d " " " ".....	7 1863	60	65	50	25	25
Columbus and Xenia.....	Income.....	10 1862	70	75	50	20	22
Covington and Lexington.....	1st " " " ".....	7 1867					
Do do.....	1st " " " ".....	7 1862					
Dayton and Michigan.....	1st " " " ".....	7 1864	26	30			
Dayton and Western.....	1st mortgage.....	7 1862	60		25	36	37
Dayton, Xenia and Belpre.....	1st mort. guaranty Mich. S. R. R.....	7 1862					
Eaton and Hamilton.....	1st mortgage.....	7 1862	80	81			
Erie and Kalamazoo.....	" " " ".....	7 1862				12½	14
Evansville and Crawfordsville.....	" " " ".....	7 1862					
Fort Wayne and Southern.....	Pledge of second section, convertible.....	10 1853-6	92½		100	107½	108
Franklin and Warren.....	1st mort.....	7 1875	53	60	50	22½	25
Galena and Chicago Union.....	1st mortgage, not convertible.....	6 1875	83½	84	100	95	100
Hillsboro and Cincinnati.....	Freeland.....	7 1866	77½	78			
Do do.....	1st mortgage, convertible.....	7 1866	63½	75	50	45	50
Indiana Central.....	Do do.....	10 1857	80		50		
Do do.....	1st " " " ".....	7 1860-1	75		25	50	50
Indianapolis and Bellefontaine.....	2d mortgage.....	7 1861	80	82	50	60	62
Indianapolis and Cincinnati.....	1st " " " ".....	7 1861			50		
Indianapolis and Lafayette.....	1st " not " " ".....	7 1867			50	26	
Jeffersonville.....	1st " " " ".....	7 1867			50	15	17
Junction (Ohio).....	Real Estate.....	10 1867	72	73		12½	
Do Indiana.....	1st mortgage, not convertible.....	8 1864	77	82	100		
La Crosse and Milwaukee.....	" " " " till 1855.....	7 1861			50	98	101
Little Miami.....	" " " " " ".....	7 1858	93½		100		
Do do.....	1st mortgage, convertible.....	7 1873					
Louisville and Nashville.....	1st mortgage, convertible till 1855.....	7 1853-6	75		50	30	32
Lyon's, Iowa, Central.....	2d " " " ".....	7 1866	75				
Mad River and Lake Erie.....	Dividend.....	7 1860	75				
Do do.....	1st mortgage, convertible after 1853.....	6 1861			50		
Madison and Indianapolis.....	Domestic Bonds.....	7 1868	57½	60	50	32	34
Marietta and Cincinnati.....	2d " " " ".....	7 1861			50		
Do do.....	1st " " " ".....	7 1867			50		
Hillsboro and Cincinnati.....	1st mortgage, convertible.....	6 1873			50		
Mayville and Big Sandy.....	" " " ".....	8 1860					
Mayville and Lexington.....	" " " ".....	8 1855-6	97			103	104
Memphis and Charleston.....	" " " ".....	8 1857-8					
Michigan Central.....	1st " not " " ".....	7 1860-90	100			108½	109
Do do.....	1st " " " " 1857.....	8 1862					
Do do.....	1st mortgage 6s. 1884.....	7 1862					
Michigan Southern.....	" " " ".....	10 1858-92			50	15	20
Milwaukee and Mississippi.....	1st " on other section, convert.....	8 1864-75					
Mobile and Ohio.....	1st " convertible.....	6 1873	102½	104			
Nashville and Chattanooga.....	1st mortgage, not convertible.....	7 1867			100	102½	103
New Albany and Salem.....	2d " convertible.....	7 1871	90	95		53	54
Do do.....	" " " ".....	7 1883	94½	95			
New Castle and Richmond.....	1st mortgage, convertible.....	8 1873					
New York Central.....	1st " " " ".....	7 1861	79			97	98
New York and Erie.....	1st " " " ".....	7 1868	90	91			
Do do.....	Construction Bonds.....	7 1861	61			40	41
Do do.....	1st mortgage, convertible.....	7 1860	55	57	50	22	25
Northern Cross, Ill.....	2d " " " ".....	7 1867					
Northern Indiana.....	1st " " " ".....	7 1865			50		
Do do.....	1st " " " ".....	7 1865					
Do do.....	Income. No mortgage, convertible.....	7 1872					
Ohio Central.....	1st mortgage, convertible.....	7 1866	101½	105		101	101
Ohio and Mississippi.....	" " " ".....	7 1873					
Ohio and Indiana.....	1st mortgage, convertible till 1860.....	6 1880			50	43½	40
Ohio and Pennsylvania.....	1st " " " ".....	7 1862			25	22	25
Do do.....	1st " " " ".....	7 1860			50		
Pacific, Mo.....	2d " " " ".....	10 1853-7					
Panama.....	1st " " " ".....	7 1861	50	51	50	50	51
Parkersburg (or Northwestern Va.).....	Income.....	7 1861					
Pennsylvania.....	1st mortgage, convertible.....	7 1865					
Peru and Indianapolis.....	1st " " " ".....	8 1862-72	92				
Rock River Valley Union.....	2d " " " ".....	8 1865					
Sandusky and Mansfield.....	1st " " " ".....	6 1866					
Do do.....	1st " " " ".....	7 1863	87	88	50		
Scioto and Hocking Valley.....	2d " " " ".....	7 1863					
Southwestern, Tennessee.....	Guar. of C. C. & C.....	1883					
Springfield and Columbus.....	" " " ".....						
Steubenville and Indiana.....	" " " ".....						
Terre Haute and Afton.....	" " " ".....						
Do do.....	" " " ".....						
Terre Haute and Richmond.....	" " " ".....						
Toledo, Norwalk and Cleveland.....	" " " ".....						
Do do.....	" " " ".....						
Do do.....	" " " ".....						



## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D
U. S. Loan.....	6	1836	105	105
Do .....	6	1862	112½	113
Do .....	6	1867	116½	120
Do .....	6	1868	118½	120
Do (int. ceased July 1) 5		1863		102
Do Coupons.....	6	1862		118
Do .....	6	1867		118
Do .....	6	1863		101

## STATE.

Alabama.....	5			
California.....	7	1870	90	92
Arkansas.....	6			96
Georgia.....	6		90	95
Do .....	7			
Illinois Canal Bonds.....		1860		
Do do registered.....		1860		
Do do .....		1847		
Do do registered.....		1847		
Do do Internal Impt. 6		1847	94	95
Do Interest do.....			64	64
Indiana.....	5		83½	87
Do .....	2½		53	54
Do Canal Loan.....	6			
Do do preferred.....	6			
Do special preferred.....	5			

Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	97	
Do .....	5			
Louisiana.....	6		93	94
Michigan.....	6		97	98
Missouri.....	6		93½	95
New York.....	6	1860-61	109	110
North Carolina.....	6		99	100
Ohio.....	6	1856	101	
Do .....	6	1860	104½	105
Do .....	6	1870	111	112
Do .....	6	1875	112	113
Do .....	5	1855		

Pennsylvania.....	6			
Do .....	5	1870	87	88
Tennessee, long loan.....	6	1890	96½	98
Do Coupons.....	5		82	83
Virginia Coupons.....	6	1886	100	101

## CITY SECURITIES.

Albany.....	6	1871-81	99½	
Allegheny.....	6	1875-7	80	
Baltimore.....	6	1870-90	96½	97
Do .....	5	1865		
Boston Bonds.....	4½	1860		
Chicago.....	6	1873-7	92½	95
Cleveland.....	6	1879	103½	105
Cincinnati.....	6	1860-92	96	96½
Do .....	6	1897		
Do .....	5	1884		
Do W. W.....	6	1865		
Covington.....	6	1857	75	77
Jeffersonville.....	6	1890	70	
Louisville.....	6	1880	84	89
Memphis.....	6	1882		72½
New York.....	7	1857	100½	
Do .....	5	1858-00	98	99
Do .....	5	1870-5	97	100
Do .....	5	1890		
Philadelphia.....	6	1876-90	92	93
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1883		
Racine.....	7	1873	61½	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1873	75	76

## COUNTY BONDS.

Bourbon, Ky.....	6	1881		
Darke, O.....	7			
Fairfield, O.....	7	1862		
Fayette, Ky.....	6	1881-3	75	75
Hancock Co.....	7		70	76
Mason, Ky.....	6	1881	69	66½
McCracken Co. Ky., endorsed by New Orleans and Ohio R.R.				
St. Louis.....	6	1866	80	85
Do .....	7	1871		

## BANKS.

American Exchange Bank, N. Y.....	105½			
Ohio Life Insurance and Trust Co.....	102	103		
Washington Insurance Co.....	84	85		
City Insurance.....	70			
Cincinnati Insurance Co.....	84			
National Insurance.....	75	80		

## KENTUCKY.

Bank of Kentucky and Branches.....				
Northern, and Branches.....	100			
Southern, and Branches.....				
Bank of Louisville.....	93			
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....	107½	108		
Commercial Bank of Kentucky.....				

## INDIANA.

State Bank and Branches.....				
State Bank and Branches.....				
Union.....				
Planters.....				

## LAND WARRANTS.

160 acre warrants.....	Off'd.	Ask'd.
40 acre warrants.....	\$176	
40 acre warrants.....	88	
40 acre warrants.....	44	

## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	¾	¾
Boston.....	Sight.....	¾	¾
Philadelphia.....	Sight.....	¾	¾
Baltimore.....	Sight.....	¾	¾
New Orleans.....	Sight.....	¾	dis.
England.....	Sight.....	110	110½

## SPECIE.

	GOLD.	SILVER.
California clean, p oz.....	\$17 60 @	\$17 65
Spanish Doubloons.....	16 75 @	16 75
Patriot Doubloons.....	15 75 @	15 80
Sovereigns.....	4 85 @	4 87
Guineas.....	5 09 @	5 00
American, new.....	1 00 @	1 00
American, old.....	1 06 @	1 06
Portuguese.....	1 00 @	1 00½

American Dollars.....	1 04 @	1 04
American Halves.....	1 04 @	1 04½
Spanish Dollars.....	1 12 @	1 13
Spanish Quarters.....	1 00 @	1 01
Mexican Dollars.....	1 05½ @	1 06
Five Franc pieces.....	97½ @	98

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending June 27, 1855.

\$3,000 City of Cov. 6 per cent. Bonds, due in 1857.....	75 (& int.)
2,000 Little Miami R. R. Co., 7 per cent. Inconvertible Bonds, due in 1858.....	93½ "
1,000 Cov. & Lexington R. R. Co., 2d Mt. Bonds, due in 1883.....	60 "
2,000 Cin., Ham. & Day R. R. Co., 2d Mort. Bonds, due in 1880.....	88 "
3,000 Cov. & Lexing. R. R. Co., 10 per cent. Income Bonds, due 1859.....	70 "
5,000 City of Jeffersonville 6 per cent. Bonds, due in 1890.....	70 "
4,000 City of Wheeling 6 per cent. Bonds due in 1873.....	75 "
1,000 Ohio & Miss. R. R. Co., 7 per cent. 2d Mort. Bonds, due in 1880.....	55 "
50 Shs. Eaton & Hamilton R. R. Stock.....	36 "
47 " Marietta & Cin. ".....	32½ "
18 " Cin., Ham. & Day. ".....	75 "
20 " " " ".....	75½ "
17 " Cov. & Lexing. ".....	25 "
40 " Little Miami ".....	98 "
30 " Cincinnati & Chicago ".....	11½ "
100 " " " ".....	11 "
150 " Ohio & Mississippi ".....	20½ "
200 " " " ".....	21 "
46 " " " ".....	22 "
51 " N. Albany & Salem ".....	15 "
116 " Junction ".....	10 "
80 " Cov. & Lexington ".....	25 "
101 " Ohio & Mississippi ".....	18 "

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAITHE, STOCK BROKER, LON.

June 1st, 1855.

Cleveland and Pittsburgh, 1st Mort, 1850.....	@ 80
Erie, 3d Mortgage, 1883.....	85 "
" Sinking Fund.....	80 "
Grand Trunk (Canada) Debenture.....	94 "
Great Western " conv.....	110 " 112
" " non-conv.....	102 " 104
Illinois Central, 1st Mort., 7½s.....	69 " 70
" 6s.....	68 " 69
Marietta and Cincinnati, 1st Mort.....	77 " 82
Michigan Central, conv., 8s.....	88 " 90
N. York Central. No Mort. Not conv.....	80 " 82
" conv.....	94 " 96
Ohio and Mississippi, 1st Mort.....	" 82
Pennsylvania, 1st Mort, conv.....	91 " 92
" Sterling, 2d Mort.....	88 " 90
Stuebenville and Ind., 2d Mort.....	87 " 88

## Monetary and Commercial.

The week just passed may be characterized in general as a dull one. The continuance of the heavy rains and the scarcity of currency, added to the character of the season, in general, have contributed to make it so. The whole country has been deluged with rain, and the streams are full. The Ohio is at a fine boating stage. There has been a moderate business done in river freights.

Provisions have been in good demand, and prices for Pork and Bacon have advanced. Wheat is fast maturing—a little warm and seasonable weather will ripen it. We have already received new Wheat, from Memphis. Flour may, therefore, be expected to decline.

Money has been more sought after, during the present week, than the preceding, and will probably continue so till after the payments of the 1st are over.

Eastern Exchange continues as quoted last week: ¼ @ ½ per cent. premium, and in moderate demand. In New Orleans Exchange little is doing, at from ¼ discount to par.

The Stock market, during the week, has been more active, and prices tend upwards. We give, below, our usual quotations.

Advices from the East notice an active Stock market during the week, and a rise in the prices of good securities. The general expectation of a good crop has induced more confidence in railroads, and, consequently, considerable speculation in Stocks is going on.

The two New York State Canal Loans, (\$2,750,000), have been taken at prices ranging from 117-26 @ 118-76. The market for Sterling Exchange is not active.

There is a large decline in the imports of the present year, while the exports continue as large as during the last year.

## SALES AT THE NEW YORK STOCK BOARD, JUNE 22.

10,000 Miss. 6s.....	98½
3,000 Erie, conv. 62.....	90
15,000 " Bonds, 75.....	92
1,000 Hudson River, 2d mort.....	92
1,000 Panama, 2d.....	104
12,000 Illinois Central.....	83½
1,000 " F. Bonds.....	77½
1,000 New York Central Bonds.....	91½
1,000 " 7s.....	102½
4,000 Terre Haute and Alton, 1st mort.....	92
1,000 Cleveland and Toledo.....	93
60 shares Ohio Trust.....	102
50 " Cleveland and Pittsburgh Railroad.....	55
97 " Galena and Chicago.....	107½
67 " Cleveland and Toledo.....	90
106 " Chicago and Rock Island.....	97
446 " New York Central Railroad.....	102½
50 " Michigan Central.....	103
50 " Hudson River.....	133
200 " Erie.....	63
150 " N. Ind. and So. Mich.....	105½

## THE CLAY COUNTY WAR ENDED.

The Evansville *Enquirer* of Saturday contains an account of the return and disbanding of the Guards, who went from that city on the Governor's call to suppress the Clay county Insurrection. Some speeches were made, of course. No American gathering, for any possible purpose, ever met or separated without a speech. The army was disbanded and proceeded with all convenient despatch to bend their bayonets into sickles, at least we hope they did, as there was a great demand for sickles at Evansville a few days ago to cut the wheat beaten down by the rain,—they were sought for even here, but sickles had yielded to cradles and the article could not be had. This is an interesting fact, but a digression, and we will return, as the French say, "to our sheep," the Guards.—The *Enquirer* says their heaviest duty was performed on Tuesday, when a constant watch was kept for attacks by those exasperated at the arrests of the Blackboys:

The day however, passed off quietly, and no hostile demonstration was made. Seventeen or eighteen men were arrested during the day, without resistance, and taken before the justice of the peace, but as some important witnesses on both sides could not be brought forward at once, the examination was postponed till the 27th, and the prisoners gave bail in the sum of \$1000 and \$2000 for their appearance on that day. Great difficulty was found in getting witnesses to prove the guilt of the suspected individuals, as they feared the violence of their friends, and this was no doubt the reason that arrests were not made sooner. One witness whose house and property was burnt, and who had to leave the country with his wife, refused at first to come back, as his life had been threatened, but eventually they both made their appearance, and left again at the same time as the Guards.

Some four or five of those arrested were watching the proceedings at the Squire's and were not a little surprised at the writs being served on them.—*Indianapolis Journal*.



## INTERNAL IMPROVEMENTS IN TENNESSEE.

The following extract of a letter from one of the foremost of the intelligent, energetic and persevering of the band of brave spirits, who have inspired and sustained the Internal Improvement system of East Tennessee, will be read with interest by the citizens of Charleston. It shows how our own enterprises are continually bearing fruits, and that our connections with the West form but a stem, which, the instant we pass the Mountains, naturally branches out into fruitful feeders in every direction through the great Valley of the Mississippi. The Blue Ridge Railroad once completed, will speedily embrace in its connections the whole Valleys of the Ohio, the Tennessee, the Mississippi and the Missouri. The completion of all this vast scheme of communication will be made in a few years:

KNOXVILLE, June 6, 1855.

DEAR SIR: I write to say to you, that on this morning the Board of Directors of the Knoxville and Kentucky Railroad Company concluded a contract for the construction of thirty-two miles of the road from this place, north; the work to be commenced on the 1st September proximo, and completed in two years from that date. The contract also provides for the extension of the road to the Kentucky State line, by the 1st September, 1858, should the Company within a reasonable time conclude that their resources will justify the enlargement of the contract to that extent. The parties taking the contract are GAMBLE, BURNS and others of Pennsylvania, men of large means unquestionably. \*

The first thirty-two miles will give us a road to the immense coal and iron fields along the eastern slope of the Cumberland Mountains; at the same time it will secure to the Southern roads terminating here, the agricultural products that have heretofore gone via Clinch River to Chattanooga, and thence to market.

This movement of ours will give a fresh impetus to the interest which has heretofore been manifested at Cincinnati, in the railway to Charleston; and I think we shall very soon hear that the entire line from Knoxville to Cincinnati is provided for.

We have recently had copious rains, and our crops in East Tennessee, excepting oats and hay, will be very abundant. Wheat is very promising, indeed, and will be gathered in two or three weeks. The crop will be two or three times larger than ever before.

Respectfully, WM. G. SWAN.  
H. GOURDIN, Esq.

[Charleston Mercury.]

## TAKING IMPRESSIONS OF NATURAL OBJECTS.

M. Loozey, the Austrian Consul-General, recently presented to the New York Farmers' Club, a book containing several beautiful and striking impressions of plants and flowers, which have been taken by a singular process discovered in the Imperial printing establishment in Vienna. If the original, of which a copy is to be taken, be a plant, flower, insect, or any vegetable substance, it is placed between a copper and lead plate, brought close together with screws, when two heavy rollers are passed over them. The original leaves itself impressed on the lead plate with its whole surface.

If the colors are applied to the lead, as in printing copper plate, a striking resemblance is got in one impression; but if a great number of copies be required, the lead plate will not give it, on account of its softness. If the

impressions are to be printed on a typographical press, it is stereotyped from the lead plate, and as many copies produced as may be required. If it is to be multiplied by copper-plate printing, the galvanizing process is had recourse to. The originals are covered by dissolved gutta serena, which, when removed, is covered with a solution of silver—thus rendering it fit for a matrix for galvanic multiplication.

SPARTANBURG AND UNION R. R.—At a meeting of the directors of the Spartanburg and Union Railroad, held at Spartanburg, June 6, John H. Evins, Esq., of Spartanburg was elected Secretary and Treasurer of the Company, to supply the vacancy occasioned by the resignation of Maj. Dean.

NEW YORK CENTRAL RAILROAD.—The receipts of this road from passengers and freight during the month of May, 1855 and 1854, were:

	Passengers.	Freight.	Total.
1855.....	\$511,602 73	\$309,310 00	\$820,912 72
1854.....	\$294,948 68	\$215,872 20	\$510,820 88
Increase....	\$216,654 05	\$93,437 80	\$310,091 85

## TO OUR FRIENDS.

We would announce to our railroad friends that we are again prepared to execute with neatness and dispatch, all varieties of RAILROAD PRINTING, blanks, reports, way bills, time tables, blank books with or without PRINTED HEADINGS, and everything in the printing or stationery line that may be required to stock the various departments of a railroad office. Having been compelled by the fire to refit our office, we have purchased a complete assortment of type with especial reference to railroad jobbing. Our type and materials are all new and copperfaced; our presses are of the best kinds to secure both neatness and rapidity in execution, and our workmen are experienced. We would therefore call the attention of our friends to our new establishment in the old building, 167 Walnut street, and trust they will take this method of expressing to us the appreciation they have of our journal, and the sympathy they feel under our loss.

Orders sent by mail will receive the most prompt attention as if personal application were made.

NOTICE TO CONTRACTORS.—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Obion (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the road is heavy, containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburg and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

may 17-41.  
[Railroad Journal please copy.]  
BECKER & RUST,  
General Contractors.

PENNSYLVANIA CENTRAL RAILROAD.—The Earnings of this road for the month of May show an increase of near ten per cent. over the corresponding month last year. Annexed are the comparative figures:

Earnings, May, 1855.....	\$325,711 94
Earnings, May, 1854.....	297,137 95
Increase.....	\$28,573 99

Will be Ready on or about the first of August next,

## SWAN'S NEW TREATISE

FOR

Justices, Lawyers, Business Men, etc.,  
Under the Late JUSTICES' ACT and the CODE.  
By Hon. J. R. SWAN,

Judge of the Supreme Court of Ohio.

PRICE \$4.50.

THIS Work embraces the Law, together with the decisions of the Courts of this State, as reported down to February, 1855, upon, among others, the following subjects:—

Bills of Exchange, Checks, and Promissory Notes;  
Assignments of Claims not Negotiable;  
Bills of Lading;  
Mortgages on Personal Property, with Forms, etc.;  
Sales;  
Liens of Mechanics, and Furnishers, etc., of Boats,  
Buildings, etc., with Forms;  
Partnerships, General and Special;  
Sureties and Guaranties;  
Common Carriers;  
Hirer, Borrower, and Depositor etc., of Goods;  
Actions, etc., against Water Crafts, with Forms, etc.;  
Frauds;  
Principal and Agent;  
Contracts, generally;  
Husband and Wife—Parent and Child—Guardian and Ward—Infants;  
Inn Keepers;  
Forcible Entry and Detention, with Forms, etc.;  
Forms of Deeds, Mortgages, Powers of Attorney, Warrants of Attorneys, to Confess Judgment, Agreements, Wills, etc., etc.

The new Justices' Act has changed entirely the Forms of Process, Bonds, etc., and the mode of conducting Actions before Justices of the Peace. It makes the provisions of the Code applicable to proceedings before Justices, which are, in their nature, applicable, without designating what provisions of the code are to govern Justices. The present work contains all the provisions of the Code, which are deemed applicable to proceedings before Justices, arranged under proper heads, according to the subject. It, also, contains the Forms of Process, Affidavits, Orders, Undertakings, Docket Entries, and the incidents generally of Actions before Justices of the Peace, as altered and modified by the New Justices' Act and the Code.

The general arrangement of the work is, in many respects, similar to the 6th Edition of the Treatise; but new titles and subjects have been introduced, and there is no title of Law retained from the former Treatise, which has not been either re-written, or modified and enlarged. No labor has been spared to make the work acceptable to Justices, and useful to those who desire to consult the general principles of Mercantile Law.

The volume will be elegantly printed in large 8vo., and firmly bound in Law Sheep, and will be published on or about the first day of August next.

H. W. DERBY, Publisher, Cincinnati.

RECENTLY PUBLISHED.

## SWAN'S NEW REVISED STATUTES.

Derby's Edition—Price \$5 00.

The only Authorized Collation of the Statutes in Force.

THIS volume contains the collated Statutes of Ohio, in force from August 4th, 1854, with reference to prior Laws, in one hand—one volume.

It contains all such Laws of a general nature as are in force, arranged in alphabetical order. The form is that adopted in the publication of the Old Statutes.

The book has been approved by the ablest legal talent in the State, and it is the expressed opinion of the Bar, that there is no man better qualified than its distinguished author, to perform with accuracy, the labor required in the compilation of so large and comprehensive a work.

No care or expense has been spared to make the work perfect and reliable in all respects, and it is offered to the profession as the authorized embodiment of the existing Laws of the State to be used in her Courts, and by all her public officers.



**Parry's Anti-Friction Box,**

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1853.

Mr. Parry—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENNA. R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

Mr. Parry—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 10, 1855.

GEO. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes.

Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the MERCURIAL GAUGE, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DURAND, FULTON AND TILTON.

Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**STEREOTYPE FOUNDRY,**

AND AGENCY OF

**L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)

is prepared to execute in the best manner all kinds of

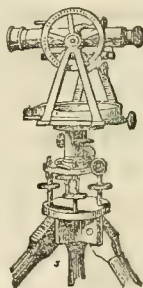
**STEREOTYPING,**

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,

168 1-2 Vine Street, Cincinnati, O.

**MATHEMATICAL INSTRUMENTS.**

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Sts.,

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

Surveyors' & Engineers'

Instruments, Theodo-

lites, Transits,

Levels, &c.,

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

**CATALOGUE OF PATENTS;**

Showing the Subject or Title of Every Patent granted by the United States Patent Office prior to the present year, and the number under each title; being a complete view of all that has hitherto been done in the whole field of Invention. Price 25 cents. For sale only by the Author. Copies sent by mail Address,

J. S. BROWN,

Washington, D. C.

**C. WELLENAU,****Artist of Ornamental Penmanship,**

HONORARY MEMBER OF SEVERAL ACADEMIES OF FINE ARTS AND SCIENCES, &c. &c.

Respectfully offers his services to the public of this city, for the writing of ALBUMS, TITLE PAGES, DIPLOMAS, SHOW CARDS, TEXTS,

**Dedications, Inscriptions & Certificates,**

In the most magnificent and splendid style. Also

INVITATION, WEDDING AND VISITING CARDS,

Superior to Engraving.

All executed with neatness and dispatch. Office

No. 126 Fourth, cor. of Race street

**PROSSER'S PATENT****Lap-Welded Iron Boiler Tubes.**

TUBES screwed together, flush on both sides, for Artesian wells, etc. Free-joint Tubes, for Core Bars, Awining Frames, Leaders, etc.

Brass Boiler Tubes. Patent Wrought Iron Blacksmiths' Water Tuyeres, Water Backs, etc.

Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Tires, Platers' Rollers, etc.

P. S.—All Tools necessary for the construction or keeping in order Tubular Boilers.

THOS. PROSSER & SON,

28 Platt Street, New York.

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**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

AND

**STEAM PUMPING MACHINE,**

WOULD respectfully invite the attention of RAILROAD Companies and the public generally to their Pump, as the best Pump now in use; they are simple in their construction, compact, durable and not likely to get out of order; we adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes when a Pump can be used. Also, for forcing a large body of water to a great height or distance.

These Pumps are used on nearly all the principal Railroads South and West.

Silver Medal (the highest premium) awarded at the late Fair of Ohio Mechanics' Institute.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled.

June 21, 1853—ly

**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks.

Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitation in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,

Railroad Record Office, 167 Walnut St. Cin.

**GAS.**

AUBIN'S PATENT.—We are agents for this new and improved furnace, and having had one in operation at our office for several months past, can confidently recommend it as being simple in its operation, occupying little room and furnishing a pure and beautiful burning gas. From the peculiar arrangement of the retort it is not liable to burn out, thus saving a great part of the expensive repairs of other furnaces. We are prepared to erect these furnaces at our own risk and warrant them to produce good gas.

T. WRIGHTSON & CO.,

167 Walnut-st., Cin'ti.

**"GARDNER'S ROCK DRILL."**

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.

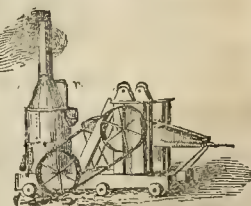
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,

Trinity Building, N. York.

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**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**  
**WHALEBONE AND STEEL WIRE BRUSHES.**  
**Artesian Well Tubes**  
**Screwed Flush inside & outside.**  
**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**  
**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**  
**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**  
 For warming air, boiling water and heating ovens.

**ANNULAR**  
**SURFACE CONDENSERS,**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**  
 For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length).

**CAST-STEEL CANNON.**  
 of any calibre.  
**PATENTED CAST-STEEL TIRES,**  
 For Railway Wheels. Railway Axles and Springs,  
**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

**FRIED. KRUPP,**  
 Essen Rhenish Prussia.  
 Represented solely in the United States by  
**THOMAS PROSSER & SON,**  
**28**  
 PLATT STREET, New York.

**CLINTON ROBSON & CO.,**  
**BRASS FOUNDERS,**  
 No. 154 Front street, between Pike and Butler sts.,  
**CINCINNATI OHIO.**

STOP COCKS, Bibb, Flange, Valve, Gauge, and Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes, Couplings, Salt Well, and Hose Joints; Steam Whistles, Distillery Work, General Brasses, Anti Friction Metal, Spelter Solder, and Copper Rivets.  
 Pumps of all descriptions, Brass and Composition Castings, Dixon's best Black Lead Crucibles.  
 Also, Dr. Ransom's Patent Constant Suction Pump for Railroad Water Stations.

**W. G. ATKINSON,**  
 Civil Engineer, Surveyor & Draftsman.  
 CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.  
 Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared. mar-ly

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, etc., by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Gauges**

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,  
 15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**Terre Haute & Richmond R. R.**



**Summer Arrangement.**

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A.M., arrives at Terre Haute at 11.55 A.M., connecting with the 12.30 P.M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P.M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P.M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P.M. Time from Indianapolis to St. Louis 22½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P.M., arrives at Terre Haute at 4.45 A.M.

TERRE HAUTE TO INDIANAPOLIS.  
 MAIL TRAIN leaves Terre Haute at 7.10 A.M., arrives at Indianapolis at 10.42 A.M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P.M., arrives at Indianapolis at 3.15 P.M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.  
 May 28, 1855. S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.**

**SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A.M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A.M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A.M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A.M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 P.M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P.M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P.M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P.M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A.M., 1.25 and 6.00 P.M.

LEAVE RICHMOND 7.00 A.M., 10.30 A.M., & 6.30 P.M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A.M.; 1.25, 2.15, 7.15 and 8.15 P.M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.  
 HENRY O. AMES, Supt.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena & Rock Island,**  
 BY THE WAY OF THE  
**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855. Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A.M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P.M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P.M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

D. M. MORROW, Superintendent.

Feb. 8-ly



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
Through Tickets from all Parts of the West,  
ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILA-**  
**DELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

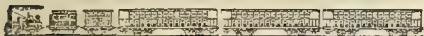
**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston; the Ericson Steamers, by Canal, to Philadelphia and New York. And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

W. M. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 84 Baltimore.

**The Shortest, Quickest and Best**  
**ROUTE TO LOUISVILLE.**



MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.

**OHIO & MISSISSIPPI RAILROAD,**  
ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER  
notice, the Passenger Trains will run as follows:

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.**

**For Indianapolis.**

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.**

**For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M., 2.30 P. M., 4.05 P. M., and 9.30 P. M.

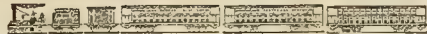
Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth Street, north side, four doors from Vine Street, opposite new Custom-house.

S. S. POST, Chf. Eng'r and Supt.  
Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.  
W. S. BABCOCK, Agent,  
Sept. 5. St. Louis and Cincinnati Omnibus Line.

**1855. Winter Arrangement, 1855**  
**COMMENCING MONDAY, JAN. 29.**



**LITTLE MIAMI AND COLUMBUS, AND XENIA RAILROAD.**—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

**FROM CINCINNATI TO**

To New York in.....	32 1/2 hours.
To Philadelphia in.....	31 1/2 "
To Washington in.....	29 "
To Baltimore in.....	28 "
To Buffalo in.....	16 1/2 "
To Dunkirk in.....	15 "
To Cleveland in.....	9 1/2 "
To Sandusky in.....	8 1/2 "
To Pittsburgh in.....	14 "
To Wheeling, in.....	10 1/2 "

**FOUR DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

**SECOND TRAIN.**—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock, A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

**THIRD TRAIN.**—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Morrow.

**FOURTH TRAIN.**—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**FARE AND THROUGH TICKETS.**

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-boat Landing, or at the Eastern (Little Miami) Depot, East Front street.

WM. H. CLEMENT, Superintendent.  
P. W. STRADER, General Agent

**OMNIBUS LINE.**

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

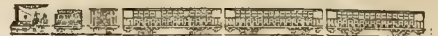
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-14.

**PERU & INDIANAPOLIS R. R.**



*Peru, Logansport, Wabash, Rochester, and Indianapolis.*

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.  
Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.  
On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demosville, Butler, Irving, Falmouth, Cullenville, Boyd's, Berry's, Robinson's, Gannett's, Cythiana, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cythiana.....	2 00

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington. J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices  
oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

**VIA LAWRENCEBURG.**

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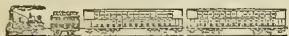
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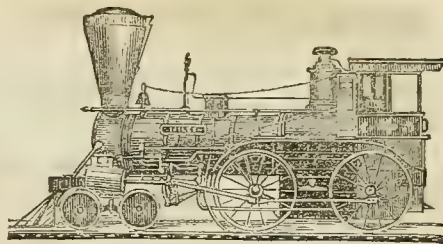
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OFFICE—BUFFALO, N. Y.

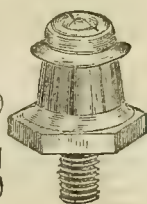
G. Palmer, Pre'st. Buff. & State R. R. } C. C. Dennis.  
C. H. Reed, Pre'st. Erie & North E. R. R. } Supt,  
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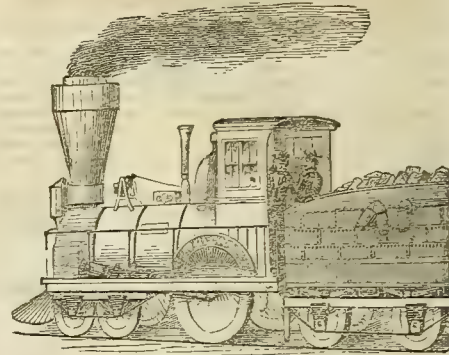
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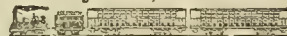
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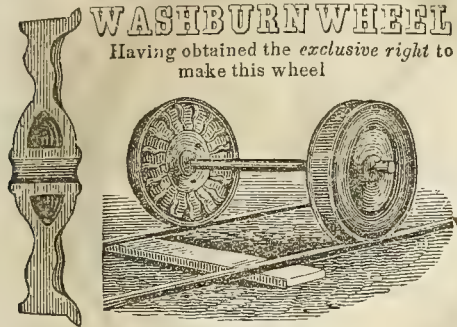
They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, &c.

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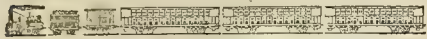


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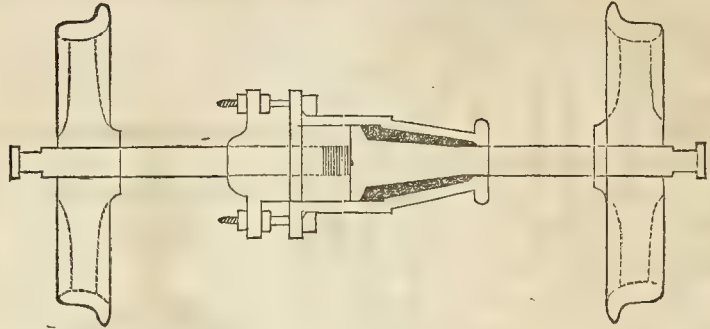
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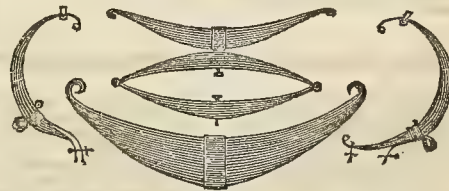
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Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "

Charles H. Fisher, Esq., "

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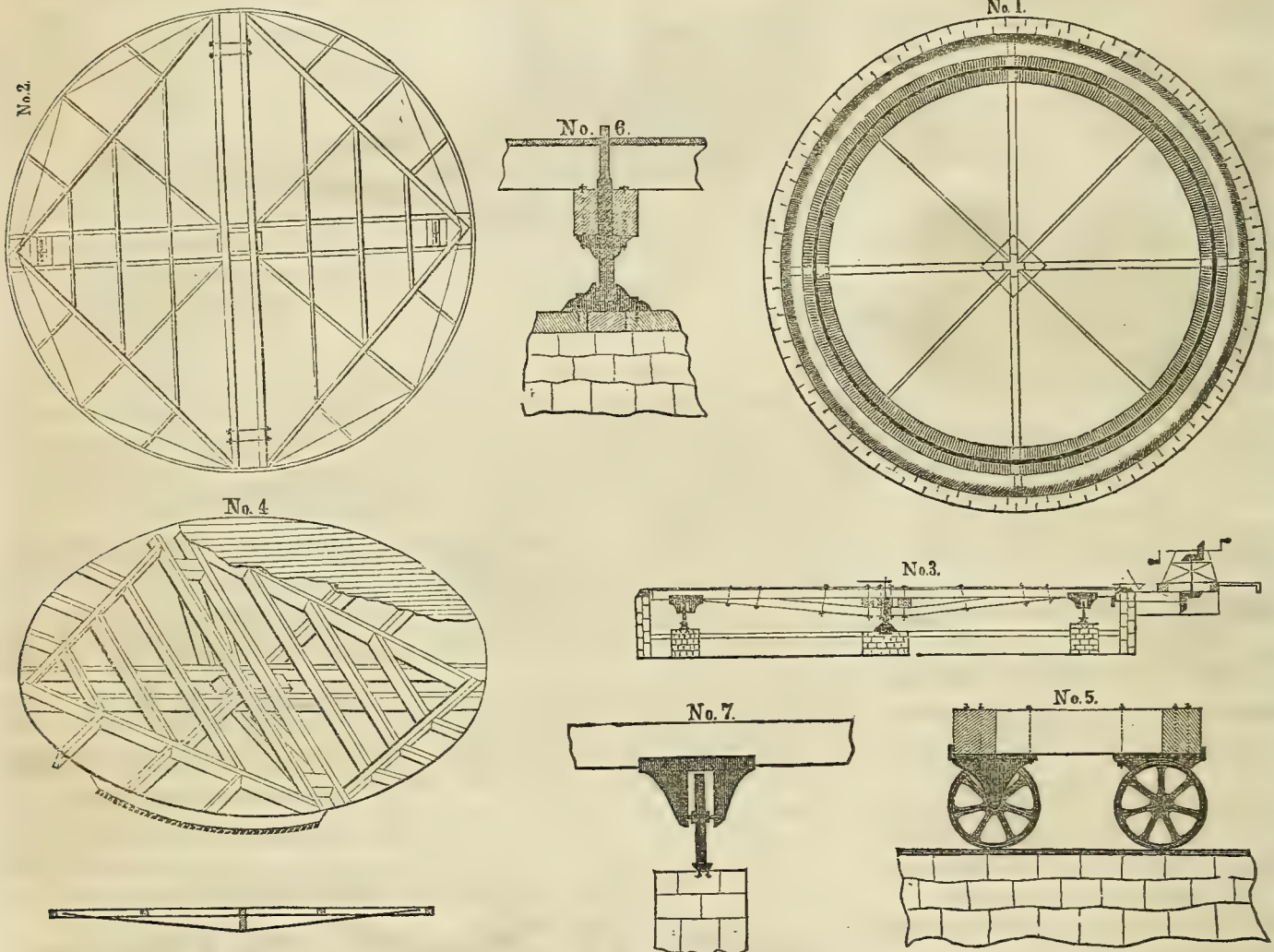
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Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.  
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Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of *Bank and Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,  
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# Railroad Record.

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W. WRIGHTSON, }  
J. A. JAMES, } Associate Editors.

CINCINNATI:  
THURSDAY MORNING, ..... JULY 5, 1855.

E. D. MANSFIELD,

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SWAN'S NEW TREATISE FOR JUSTICES, LAWYERS, BUSINESS MEN, ETC.—This is an able compend of practice under the new Justices' Act and the Code, and embraces decisions of the courts and necessary forms as altered and modified by the new Justices' Act and the Code.

Judge Swan is also the author of the Revised Edition of the Statutes approved by the Legislature, and which is necessarily the only authorized book of Statutes from which decisions are made by our courts. This work emanating from such a reliable source, may therefore be deemed reliable. It should be found in the library of every good business man and railroad company, as well as on the tables of those for whom it is more particularly intended.

VOL. III.—No. 19.

## CONNECTION BETWEEN OUR RAILROADS.

In our last we considered the necessity and importance of a direct communication between the various roads centering in our city. Our remarks, although designed for Cincinnati, are equally applicable to any city situated as we are between great systems of roads on the east and the west, branching out in every direction, and bringing us into connection with every portion of the union. We are surrounded also on every side with high hills, which prevent access except by means of the river banks or by tunneling the hills. We, therefore, have no such resource as is left to cities situated on a plain that are easily accessible, and, indeed, we doubt much whether a more desirable or economical entrance could be procured on the prairie, than the one which is offered us by a tunnel under the city. We have shown, in the first place, that a tunnel may be made to traverse the whole length of the city, from Deer creek to the terminus of the hill near Mill creek, at a less expense than the mere right of way could be reasonably expected to be purchased for.

Secondly, there are advantages in the tunnel route that cannot be obtained in the roadway in the open street. In the open street, owing to the frequent crossings of persons and vehicles, the speed of the train must necessarily be limited to six miles per hour or a little less. In a tunnel there are no crossings to provide for, no dangers of collision with vehicles or loss of life from running over foot travelers.

The speed may then be raised to its maximum, and the expense of running reduced to its minimum, and the primitive cost also reduced to a minimum. With these three elements, the tunnel route cannot fail to be a desirable one to every road which enters the city.

We come now to consider the means by which this road can be built, and its bearing on every enterprise connected with our prosperity.

First. The tunnel road should not be under the exclusive control of any one of the existing roads. In a privilege granted by the city for the common good, no one interest should predominate over the others, no rival road should have the power of excluding or seriously annoying its competitors. And secondly, it is of great importance that all should be represented. We propose, therefore, that each road to be accommodated, should be represented equally and fairly in the organization. Let a company composed of these representatives organize under the general law of the State of Ohio, let them get a safe and reliable estimate from an engineer of acknowledged ability and honesty, and upon this estimate, based on the best possible data, apportion to each road its part of the expense. Let us see, then, how the mat-

ter would stand. The roads to be accommodated are:

On the East.	On the West.
Little Miami.....	Cin., Ham. & Day.
Cin., Wil. & Zanes.....	Eaton & Hamilton.
Cin. & Marietta.....	Ohio & Mississippi.
Cin. & Hillsboro.....	Lawrence. & Ind.
Dayton Short Line.....	Cincin. & Chicago.
	The Junction R. R.

Let each of these eleven roads subscribe its guaranteed bonds to the amount of \$50,000 agreeing to pay the interest on the same, till the tunnel is in complete operation. We shall then have a capital of \$550,000 without the actual expenditure of *one cent* by the various roads; and in the course of *one year and a half* we may have the tunnel road fully built and equipped with a magnificent central depot—a Union Depot for all the various interests, which would in reality be a matter of less expense and greater economy in operation than an open roadway through Front or Columbia Streets could under any possibility be; even if it were possible to overcome the determined resistance that is already opposed to the measure.

But let us see what would be the effect of this route on the passenger and freight business in general, and then for a moment glance at each road in particular.

First, what effect would it have on the passenger travel and how would it meet the wants of travelers. As far as through travel is concerned, there can be but one opinion. The traveler whose business or necessity compels him to hasten on, would save at the least a detention of several hours, he would not be ungraciously compelled to be dragged at a snail pace through the city at a time when he counts *moments of detention as days of lost time*. To him then the tunnel route would be an immense gain. But the traveler who comes to the city for the purpose of tarrying awhile, would he gain nothing by being brought into the centre of the city in place of being left in its outskirts? We answer *he* would gain much—much in comfort, much in time. The last hour of the journey is always the most fatiguing, and the long stage ride from the present depots we know, by experience, to be the most fatiguing portion of a journey home. The traveler would assuredly gain much in comfort by shortening the stage ride. And he would gain in time. A half hour at least is wasted to every passenger arriving in Cincinnati by the present means of access to the inhabited portion. A half hour to each passenger summed up in the course of the year is a tremendous aggregate. Take for example the Little Miami Railroad. This road carried during 1854, nearly *three hundred thousand* passengers. One half hour's detention on each amounts to *one hundred and fifty thousand hours* of lost time. And this tremendous loss is occasioned on only a single



line, while we have, in reality, eleven distinct lines of travel centering here independently of our southern connections. This evil is one which must grow in proportion to our increasing facilities and increasing business. And no street track can remedy it, for the cars can run no faster in the open street than can the omnibus.

Neither is the evil considered in regard to freight of any less moment than in regard to passengers. The aggregate amount of drayage for goods to be left in the city alone, under the present arrangement is tremendous; while from a central depot it could be reduced at least *one-half*, and yet give employment to our draymen. Goods destined for transfer from eastern to western roads, should not be subject to a toll here, and with the arrangement proposed, would not be. Our roads could then compete with the northern lines, more favorably situated in this respect than we are at present, and thus by increasing their general business would be able to afford additional facilities to the business proper of the city. Goods destined for the river or to be received from the river, could readily be received at the present depot of the Little Miami Railroad, or at the wharf property of the Ohio and Mississippi Railroad. The arrangements therefore for freight could be made perfect.

Second. What would be the effect of this connection on each particular road? A tremendous saving in expense and trouble.—The Little Miami and the Ohio and Mississippi, to secure a connection with each other, and that too, depending on the caprice of popular will, and subject to continual annoyance, will have to spend at least *one million dollars*. And when this connection is thus made, they will have but partial possession of their own track. It must be shared by every obstinate drayman who chooses to annoy them. These roads for \$50,000 each, in guaranteed bonds, can secure a better and a safer connection, one which when once made, can never be disturbed. It has been stated that it will cost the Cincinnati Hamilton and Dayton railroad about *one million dollars* to obtain a passenger depot at the Pearl street Market, now no longer used for market purposes. The Cincinnati Wilmington and Zanesville Railroad are looking to a western connection several miles north of the city at an immense cost, for the purpose of transporting coal and heavy articles without cost of drayage. Here we have then an aggregate of several million dollars to be expended in separate and single enterprises, to half accomplish that which the joint expenditure of half a million on an equitable basis would fully perform. If the Ohio and Mississippi and the Little Miami Railroad, obtain permission to spend their million dollars to shake hands with each other under difficulties, and the Cincinnati Hamilton and Dayton Railroad spends

its million to come and look at them across the square, and the other roads spend their quota to go around us at great inconvenience we shall still have an imperfect means of communication: horses must be employed as a motive power in the thickly settled parts of the city, grades overcome and curves turned; while constant collision between the railroad and mercantile interest will destroy in a measure the usefulness of the work.

#### HEADS UP!—SKIES BRIGHT!—THE CROAKERS DOWN!

There has been a most desperate effort made during the year past to convince the world, and to convince ourselves, that we were all going into a *crisis*,—a general *wind up*,—*a wipe out and begin again* state of things;—but there was really very little to found such an idea upon. The country had doubled its wealth in fifteen years; the coin had trebled, there was money enough. There was a state of prosperity, never realized before in any nation. It was impossible that such a season as that of 1836-7 could occur. Yet, many thought we were approaching a general bankruptcy, and can now hardly understand, why it has not occurred. But they must learn, bad as it is, that the prosperity, wealth and business of this country was placed on too stable foundations to be shaken by every wind of doctrine or whiff of alarm. The causes which gave any real color to the alarm of last year are really passing away and we are about commencing a year—probably many years—of successful business, in all branches, and with the elements of wealth and greatness all around us, ready to be developed by the hands of industry and skill.

There are several reasons why business will now increase, credit be unlocked and confidence become established.

1. The experience of a year has proved conclusively that we are in a far better condition, than we were in any of the previous convulsions of the country. The country is older, richer, with more resources of every kind. This is now seen and known. Those, who before expected a crash, have now learned that it is impossible. Confidence is restored, because it is impossible not to have confidence. The farmers, for example, who have lost half their crops, are not touched even with the appearance of misfortune. Merchants have generally stood the shock to credit, as if they had never needed credit. In one word, the storm has passed, and scarcely left an evidence of its existence.

2. The crops of the country are so abundant, that they will take away all idea of scarcity and diminish prices. The deficiency of the crops, as an element, in the general embarrassment of last year, has been over-

rated. Still that deficiency was very great and had an important effect in depressing confidence, and in locking up capital, for want of those returns which the sale of surplus crops always affords.

Without some unforeseen adversity the crops of this year will furnish, not only enough but a surplus. As the year advances this element will be felt extensively in the business transactions of the country.

3. The liquidation of debts and diminution of credits, arising partly from alarm, and partly from necessity, occasions much less demand for money, and also a constant accumulation of capital. The consequence is, that there is a perfect *plethora* in the money market. It is impossible to keep up the past high prices of money. The great reservoirs of money are overflowing. California is again increasing her yield of gold. The balance of trade against us is nearly paid off. Our credit is increasing abroad. Credit will soon seek new outlets; for the merchants have been dealing largely in their own capital and taking little credit.

4. The war, in Europe, whether it continue or cease, will after this soon result in great benefit to us. If the war ceases, capital and credit in Europe will be at once unlocked and find their way in large masses to America. If the war continue, all the supplies we can possibly furnish Europe will be needed.

5. Under these circumstances the interest of money will fall; the price of produce will fall and capital will again seek investments in Railways. It is perfectly absurd that good 7 per cent bonds should sell, at 75 cents on the dollar, (as they have been)—which is nearly 10 per cent, when money is hardly worth 6 per cent. This state of things can not last. Railroad bonds are in ninety nine cases out of a hundred a perfect security and a good 7 per cent bond is really worth more than par. These facts will soon work out new results. Railway bonds will be sought, even on the new roads, and Railway construction will go on.

6. The new crops will immensely increase the traffic on the Western Railways and with that increase the eyes of the public will be opened. The Railways will make great profits and it will be seen that the public mind has been very much abused and mistaken in regard to Railways.

In conclusion then we repeat—"heads up—skies bright." There is an opening now to every one, who is willing to work out his own fortune. There is credit for all who *ought* to have credit. There is money for all who are willing to earn it. There are natural resources in the country, which a hundred million of people cannot work out in a thousand years. There is every providential, civil and political blessing which can be



coveted by any people. Go ahead then! Get up steam! Shout: For the day is breaking. The clouds are gone and the sun is out.

#### OHIO & MISSISSIPPI RAILROAD—WESTERN DIVISION.

The Western Division of the Ohio and Mississippi Railroad from St. Louis to Vincennes is complete and opened. Passengers may now leave Cincinnati and go through to St. Louis by railroad all the way. This is good news, and will make a wonderful change in the passenger and freight business of Southern Illinois and Missouri.

It is stated also that Mr. Bacon of the firm of Page & Bacon has made arrangements to pay the July interest on the bonds of the Company. We hope hereafter to see an improvement in the financial prospects of this division of our great western thoroughfare. Its earnings must do much toward relieving its embarrassments.

ACKNOWLEDGMENTS.—We have been favored with the First and Second Annual Reports of the President and Directors of the North Western Railroad Co. of Pennsylvania.

The American Journal of Science and Art for July is received. It contains many articles of interest, among which are articles on the Magnetic Variation, on the Changes which take place in the Structure and Composition of Mineral Veins near the surface, the Gold Regions and Mineral Resources of California, etc.

APPLEGATE & CO'S. BANK WRITING FLUID. This is one of the pleasantest and finest writing fluids we have ever used. We know of no greater annoyance than bad pens and bad ink, and there is no greater luxury for the counting room and desk, than a good article of both. Such an article is kept by Applegate & Co. of this city. We can safely recommend their *Editor's Pen and Bank Writing Fluid* to our readers. We have tried them both and expect to continue to use them.

NEW ROLLING MILL AT PADUCAH.—We learn that a rolling mill, foundry, machine shop, and nail factory, are about to be erected in Paducah. The company who are to erect the rolling mill, own a furnace and forge up the Tennessee river and will make most of their own metal. They will make every description of iron and will be a valuable acquisition to Paducah. It is such establishments as those that give strength and importance to a town. We hope to see our friends at Paducah thrive and prosper.

MICHIGAN SOUTHERN RAILROAD.—The earnings of this road for the month of May, were as follows:

From Passengers and Mail.....	\$174,542 67
From Freight and Miscellaneous.....	96,428 07

Total.....	\$270,970 74
Earnings, May, 1854.....	228,377 80

Increase.....	\$42,592 94
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## Railroads.

#### HENDERSON AND NASHVILLE RAILROAD.

We give the report of the President of this road in full, as it is short and pertinent. We think there are many other enterprises in which presidents, secretaries, and engineers would do well to heed the example set by the officers of this road, in respect of salary when not engaged for the benefit of the company.

TO THE STOCKHOLDERS OF THE HENDERSON AND NASHVILLE RAILROAD.—In making our annual report for the year past, there is but little of interest to communicate which has not been heretofore generally known. Owing to many unforeseen mishaps that have attended your enterprise, in the past year, there has been but little work done. We, however, constantly employed ourselves to keep the work steadily progressing. Heavy financial difficulties, both in America and Europe have been severely felt by your project. The scarcity of provisions, with the high price thereof, had also its effect. None of which events could be foreseen or anticipated by your Board.

Owing to a total failure upon the part of the contractors to fulfill their undertaking, it was deemed necessary that said contract be nullified, which was in December last accordingly done by the Chief Engineer, and ratified by the Board of Directors, since which time there has been no contract for doing the work. On the first day of December, at which time the said contract was nullified, your Board deemed it advisable to keep the work in progress on heavy portions of the road, supposing it would prove economical and also hasten the completion of the road. From the 1st of December to the 1st of March, they expended for work, about \$4,500, at a point known as the deep cut, in Hopkins county; the work done being estimated at \$8,000, thereby proving great economy at that portion of the work. In the meantime, the work near Henderson being done under a contract with Mr. Ross—which was work stock subscribed by Rev. Joel Lambert, there being no money paid out for work done on that portion of the road.

The charter provides for an annual election of officers on the first Monday in June in each year, and whatever difficulties may occur, unless from neglect, malfeasance, or misfeasance on the part of the present incumbent, can they be discharged or payment of salary refused unless it be done at their own option, consequently the expense of those officers are as great as though there was perpetual work for them, which they seem ever ready to perform. In view of this fact, and to keep down the expense of the company as low as possible, your president and secretary on the 15th

of March, declined receiving any pay whatever, from the company, unless when actually engaged upon the work, at their own private expense. Your engineer peremptorily declined any pay whatever, which has proven no inconsiderable saving to the company. Stockholders have been quite slow to pay up their instalments as they become due, and we have been under the disagreeable necessity of suing in some cases, which is to be much regretted. I would especially call your attention to that fact, that you may take the subject into consideration as it is impossible to build railroads without money, and it really seems to me that where the people have the proper feeling toward such an enterprise, that they would *rush forward* to its aid, to lend it a helping hand, instead of holding back and throwing obstacles in the way, thereby getting up improper feelings amongst its friends, beside doing injury to the enterprise.

Last September, your president with the chief engineer, made a trip to England, believing from evidence given them on that side of the water, that something might be done in furtherance of your projects. Through the influence of gentlemen there, we succeeded in contracting for enough iron to lay sixty miles, and hoping to pay one-third cash. Failing to do so, however, the contract was not completed or carried out, which is not now (owing to the depreciation in the price of iron) to be regretted.

Since the 15th March, the time we ceased work upon the road, we have, through our president, Mr. Lambert and several other gentlemen, been enabled to increase your capital stock by real estate subscriptions to an amount exceeding thirty-five thousand dollars. An effort of that sort should be kept up, as we have no doubt that the subscription may be, with proper energy, largely increased. The *Coal Fields* of Hopkins and Christian counties have already attracted the attention of capitalists at the southern termini of your road at Nashville, who have investments, and no doubt many others from different portions of America as well as Europe will invest, as it is now being generally conceded that it is the very best investment for capitalist that can be made, and that the region through which your road passes cannot be excelled in quality or quantity of that necessary article of consumption.

There is not a doubt upon our minds of the completion of your road, and if every stockholder will promptly step forward and act his part, the time will be short. Let us have *union* and the thing is done. It almost invariably happens that in an enterprise of this character, there is much gossiping, and many rumors, sometimes true and sometimes false. It has been the misfortune of your enterprise not to be entirely freed from such evil rumors, surmises, etc. Rather than believe from



mere idle rumors such reports, would it not be well, yea, should it not be the duty of the stockholders to demand a Board meeting that the complaints may be entertained, and action had if found necessary. I think it would be well, and calculated to do much good, if the stockholders would (at least every six months) have called meetings, that they might examine the acts and doings of the Directory, and it would doubtless be productive of much good from other considerations. Annexed will be found a statement showing the present condition of your road — its indebtedness at the present time — amount of work done — monies recovered and disbursed — all of which is respectfully submitted.

MEANS OF THE HENDERSON & NASHVILLE R. R.	
Stock subscribed to June 1, 1854.....	\$325,000
Contractor's Stock, bearing to date, say.....	34,000
Right of way, secured, depot grounds, etc.....	15,000
Stock subscribed on Real Estate since 1st of April last.....	35,000
Estimated work done by order of Board in December, January and February.....	8,000
Road graduation at cost.....	102,000
	<hr/>
	\$519,000
Expended to June 1, 1854.....	\$38,000
Expenses past year, including salaries of officers and work done by order of the Board, in December, January and February last.....	15,000
	<hr/>
Total expense.....	\$53,000

#### STATEMENT SHOWING RECEIPTS AND DISBURS- MENTS TO DATE JUNE 1st, 1855.

Received to 1st of June, 1854.....	\$30,119
Received to June 1st, 1855, from June 1st, 1854.....	8,504
	<hr/>
	\$38,623

#### CREDIT.

By amount paid Treasurer to June 1, 1854.....	\$30,119
By amount paid from June 1, 1854, to June 1, 1855.....	8,504
	<hr/>
	\$38,623
There is now due and unpaid Engineer's and Assistant's salaries, including engineering expenses.....	8,500
Due to other officers, including President, Secretary, Treasurer, Collectors, cash.....	2,160
Due to work done in December, January and February last, by order of the Board.....	3,000
Due Bank at Hopkinsville.....	1,450
	<hr/>
	\$15,000

Last year the Treasurer's books were not posted, in consequence of which we were unable to give exact amounts. That settlement has not yet been finally made, but will not (it is supposed) vary much from the above. E. G. SEBREE, Pres't.

June 4, 1855.

#### PERRYSBURG AND ITS RAILROAD SUB- SCRIPTIONS.

The citizens of Perrysburg held a meeting on the evening of June 14, to take into consideration the present state of the Junction and the Dayton and Michigan railroads, to which they had made subscriptions. The following resolution sufficiently explains the feeling of the meeting in regard to the Junction road:

*Resolved*, That the town of Perrysburg, by the conditions of its subscription of stock in the Junction railroad company, and the terms of the consolidation of that road with the Toledo, Norwalk and Cleveland railroad Co., has a legal and equitable right to require an immediate construction of the line of road from Sandusky by Port Clinton, Perrysburg and Maumee to Swanton, and therefore we request the town council of Perrysburgh and

the trustees of Perrysburg township to immediately take such measures as the circumstances may require, to secure at the earliest period a compliance with the conditions of said subscriptions of stock and the terms of said consolidation.

It was also stated at the meeting that the subscription of stock by this town to the Junction road, was made upon the express condition that the road should be built through the town, and that this condition was fully recognized in the terms of consolidation by the consolidated company.

Dr. Peck then made a statement as to the condition and prospects of the Dayton road. He said the assets of the road were abundant to complete it, but that time is needed to convert them into money. He read from the last annual report of the directors, showing that the ultimate prospects of the road are very good, but that the stringency in the money market so seriously embarrasses the company that it is with the greatest difficulty its current expenses can be met and its credit maintained unsullied. No great amount of work has been done on the road during the year past, but a large amount of the floating debt of the company has been paid off, thus relieving it from the constant drain of paying large sums for interest. The prospect is, that a sale of bonds will soon be effected, sufficient to relieve the company from its present embarrassments and enable it to resume work on the northern end of the road. It is supposed that the road can be put in running order in four months from the time work is resumed upon it.

#### TOLEDO AND ILLINOIS RAILROAD COMPANY.

At a recent meeting of the stockholders of this Company, the following named gentlemen were elected Directors, viz: Messrs. Wm. Baker, M. Johnson, W. Colburn, I. C. Colton, E. C. Litchfield, A. Boody and J. R. Osborn.

We learn that the Directors met to-day, and elected the following officers of the Company for the ensuing year, viz:

Wm. Baker, President; J. C. Colton, Vice-President; J. R. Osborn, Secretary and Treasurer; E. Whitehouse, Assistant Treasurer; W. Colburn, Chief Engineer; W. H. Burrows, Superintendent.

Mr. Burrows, as we are informed, has lately been appointed, Superintendent of the New York Central Road, and brings with him a handsome reputation for energy, tact and business capacity, in the management of the road which he has recently had in charge. The Toledo and Illinois Company, are fortunate in procuring his services in opening their line of road for business.

In consequence of the protracted rains of the present month, we learn that it will not be possible for the company to open their road by the 4th of next month, as was anticipated. Had the month of June been as favorable as usual, there is no doubt that the road would have been in readiness to be opened as early as the first. But in fact there has not been more than five or six whole working days up to the present time in

this month, and such is the character of the country through which the road passes, and so large an amount of water upon the surface that the forces of the company have to work at great disadvantage, besides the delay caused by rainy days.

We are informed, however, that there is less than 20 miles of track to be laid between the cities of Fort Wayne and Toledo. The grading, bridging and masonry, between these points are all completed, and we are assured that the delay which the unusual rains of this month have caused, will not be over ten days from the 4th.

We are glad to learn that while the recent freshets have proved so injurious to public works elsewhere, the embankments, bridges and roadbed of this Company, have stood the shock extremely well, and considering their recent make are very little damaged.—*Toledo Blade*, June 23.

#### NORTH EASTERN RAILROAD.

At a meeting of the Directors of the Northeastern Railroad Company, held on the 21st instant, the following paper was presented by the President and ordered to be published.

CHARLESTON, June 21, 1855.

*To the Board of Directors of the Northeastern Railroad Company.*

GENTLEMEN:—It gives me pleasure to say that our road is completed to the twentieth section, a distance of nineteen miles from the city.

On Monday, the 7th of May, we commenced operations; and from that date to the 18th instant, the receipts amount to \$1,678 60, being an average of \$45 47 per day.

The number of passengers conveyed during the same period was 1,910, without accident, detention or failure of any kind whatever.

Considering the distance we run—the point at which we stop in the woods—no village or summer settlement being nearer than seven miles, these results are very encouraging, and give a bright promise for the way travel, which is always of importance to railroads. In connection with the transportation of passengers and freight, an average of one hundred and eighty cubic yards of earth is daily brought from the cuts on the line of the road and deposited on our piled trackway through the marsh.

We are also rapidly filling up, by the same process, portions of our marsh land.

Our Depository in Chappel-street is now in use, and will very soon be finished.

The work towards Monk's Corner is progressing with despatch, and we shall reach that point by the 15th of September, if not before. We have iron enough to carry us beyond the Santee river, and the greater part of the work and material for the Santee swamp are ready, including the cast iron cylinders, which will form the piers of the bridge.

Twenty-seven miles on the north side of the river are graded and ready for the iron.

Two first class locomotives, in addition to the two we now have, will be here by the first of September. Also, two first class passenger cars, in addition to those we now have; and our supply of burthen cars of various kinds is ample for all immediate purposes.

For everything contained in the foregoing enumeration, and also for our real estate in the city and elsewhere, and the right of way, we have already paid, or prepared to pay,



with funds derived from original subscriptions.

We have, however, arrived at a stage of our progress at which I require your council.—Our means, in the shape of subscriptions, have all been, or are to be, appropriated in the manner and for the purpose briefly set forth in the foregoing statement; and although the larger portion of our work is done, much remains to be done. Very soon we shall reach Monk's Corner, where we shall find fair employment, but the distance (thirty miles) is too short to produce an income proportioned to our wants for construction. And the step next in order, and now to be accomplished, is to connect Monk's Corner with a point in Williamsburg District, beyond the Santee river. This should be done without delay, that at the earliest possible period we may meet the business that awaits us at that point, and thereby render available a considerable portion of our capital. For this purpose \$150,000 will be required between the 1st September and the 1st of April next; but as our only resource consists of our bonds, although they are now being readily sold, and are rising in public estimation, I have deemed it proper, before instructing the contractors to proceed, to present the matter for your consideration, and to suggest that an application be made to the banks to purchase, at the market rate, a certain amount of the bonds, to be taken at such times and in such sums as we may require, and should this be impracticable, to obtain loans from them on the hypothecation of the bonds, reimbursable as they may be sold, some provision of this kind being desirable and proper to protect us from embarrassment during the progress of the work.

Respectfully,

T. P. HUGER, President.

[*Charleston Mercury, June 23.*]

#### OHIO, INDIANA, AND ILLINOIS RAILROAD COMPANY.

At the meeting of the Board of Directors of this Company, held in this place on Monday last, the clearing and grubbing of that part of the line between this place and Kokomo, was let to Messrs. Stafford & Stafford, responsible contractors, at \$350 per mile, thirty per cent. payable in stock. The earth work in the first thirteen miles from Kokomo, in the direction of Marion and extending two miles east of Greentown, was also let at the low rates of 19 cts. per yard cubic measure, to Messrs. McSweeney & Lane. This company are industriously engaged without making much noise about it, in endeavoring to complete their road, and feel confident, that their exertions, will be crowned with success. The extreme low cost of preparing that part of the road above let, for the iron, enables the directors to rely almost without doubt upon their ability to do the work with local stock, without relying upon the "money market" for means, and they are laboring accordingly. This important work has not received that assistance heretofore from Marion, which it should, but the future promises well, and the confidence of the public in its ultimate completion is growing stronger every day.

Arrangements are on foot, for the iron, which there is little or no doubt will enable the Company to send the cars into this place at an early day. The President and Officers of this Company are men of energy and integrity, and will do all in their power to put this road through. Success to their enterprise.—*Marion Republican, June 15.*

#### AMHERSTBURG AND ST. THOMAS RAILWAY, CANADA

We subjoin below the prospectus of this road as written by its engineer, Mr William Scott, and adopted by a meeting of the Provisional Directors and other friends of the road, held at Amherstburg, June 12. It is well for us, to know what our northern neighbors are doing and how far they design to rival our own roads.

In the last session of the Parliament of Canada two Charters have been obtained to incorporate the Great Southern Railway of Canada, which will extend from Amherstburg on the banks of the Detroit River to the Suspension Bridge at Niagara Falls, as well as forming a junction with the Buffalo and Brantford Railway at Dunnville, from whence passengers can go direct to Buffalo. The Charters for this great provincial work have been granted in two Divisions, with powers at any time to amalgamate and be operated as one through line, making the total distance from Amherstburg to the Suspension Bridge, 221½ miles, and from Amherstburg to Buffalo 225 miles.

The Western Division, or the Amherstburg and St. Thomas Railway, will be 100 miles long and will communicate from its Western terminus by steam Ferry Boat with the towns of Gibraltar and Monroe, in the State of Michigan. Monroe is a large town, and a lake terminus of the Michigan Southern Railroad, 18 miles from Amherstburg; and Gibraltar is a flourishing place on the west side of the Detroit River, directly opposite the town of Amherstburg, being on the line of the projected Railway from Monroe to Detroit, and will, at no distant day, form the winter terminus of the Southern Michigan Railroad, and most probably the terminus of a branch of the Central Michigan for freight from Ypsilanti. Powers have also been granted to run a branch Railway 17 miles to connect the western end with Windsor and Detroit; the former a thriving incorporated Village, the western terminus of the Great Western Railway; the latter a city on the American side of 50,000 inhabitants, the eastern terminus of the Central Michigan and the Oakland and Ottawa Railroads.—The eastern or St. Thomas end will connect and cross at that place, the London and Port Stanley Railway, and will be the western terminus of the Eastern Division of the Woodstock and Lake Erie Extension, and from which place in continuation of the Amherstburg and St. Thomas Railway the line will run easterly by Simcoe and Dunnville, to the Suspension Bridge, connecting at its eastern end with the New York Central Railroad, the New York and Erie Railroad, the Niagara Falls and Buffalo Railroad, and the Erie and Ontario Railway, whose fine harbor at Niagara on Lake Ontario is open during the whole of the winter. In a lateral direction it will cross and connect with the Woodstock and Port Dover at Simcoe, from whence the Hamilton and Port Dover Railway will connect it with the flourishing cities of Hamilton and Toronto. At Dunnville it will be crossed by and connected with the Buffalo and Brantford Railway, not only making the most direct and shortest route from Chicago and the West to New York, Boston, and Buffalo, but forming a most complete network of communication with the interior of the Western Province by lines already chartered or in

progress, and which will largely contribute to the local traffic.

On the Amherstburg and St. Thomas Division the country is very favorable for the construction of the Railway, as the land for 50 miles is nearly level; of the remaining 59 miles the average grade will not be above 12 feet per mile in any place. The Eastern Division, although more undulating, is highly favorable for construction, and for all purposes of Railway transit the line from Amherstburg to the Falls may compare favorably with any line on the Continent.

By the route of the Great Southern Canada Railway, the distance from Chicago to New York and Boston will be 50 miles shorter than by the South Shore Road, and 25 miles shorter than by the Great Western Railway, over which latter road it will have the advantages of an easier grade, sufficient to compensate for the time of running at least 15 miles, thus giving this route equal to forty miles advantage over any other road from the West.

The capital of the Amherstburg and St. Thomas Railway is £1,000,000 currency, or \$4,000,000, and is considered ample to build and stock a first-class Railway, as well as provide against all contingencies, being at the rate of \$32,000 per mile, including branch to Windsor. The population and certainty of this line paying large dividends have induced the Municipalities to come forward and offer to contribute largely to the stock, and it is more than probable that on the opening of the books about one-fifth of the whole amount will be at once taken by them.

To estimate the amount of traffic expected on this line of road, it will be sufficient to take the last year's returns of the Central Michigan and the Great Western Railways, as their published revenue will form a sure guide as to the future of the Great Southern Canada Railway, as its connection with the Southern Michigan Railroad will be similar to the connection existing between the Central and Great Western.

The gross earnings of the Central Michigan Railroad for the year ending 31st May, 1854, was \$1,579,412, or at the rate of \$5,561 per mile annually.

The gross earnings of the Great Western Railway for the half-year ending 31 January, 1855, was \$778,876, or at the rate of \$6,491 per mile annually.

The mean traffic of the two Railways applied to the Amherstburg and St. Thomas Railway, gives a revenue of \$759,277 annually. The working expenses and repairs will not exceed 50 per cent. of the earnings, or at the rate of \$3,031 per mile per annum, which, on a well ballasted and economically operated line may be considered more than ample. The surplus \$379,638 will be the annual sum for dividend on capital, or at the rate of 10½ per cent. on \$3,000,000.

That this is not an exaggerated estimate of traffic, but rather much below what may be expected, can be shown by the fact that the Southern Michigan Railroad does a traffic of nearly one-third more than the Central Michigan, and the country through which the Southern Canada Railway will pass is more capable of supporting a Railway than that through which the Great Western passes, and has at present a population of 190,000, while the population of the other districts does not exceed 130,000. Independent of this, the gross earnings on both the Central Michigan and Great Western of this year (1855) is much



greater than has been taken for the above date.

The advantages this line possesses of shortness of route from the West will always insure it a large proportion of the through passenger traffic; the value of which may be estimated from the fact that trains on the South Shore Road have been known to carry from 700 to 1100 passengers, and 400 to 500 in a train is not an unusual number on the Great Western Railway. All published returns of these Railways show that this enormous traffic is increasing annually at the rate of from 30 to 41 per cent.

The country to be opened up by this line of road in Canada, is second to none on the American Continent. In the census and population returns of 1852, it is shown not only to produce wheat, and all other kinds of grain, with vegetables, and fruit in great abundance, but it also grows hops and tobacco. This latter production speaks highly for the mildness of the climate, which, combined with its great fertility, undoubtedly entitles it to the name by which it is designated, viz: "The Garden of Canada."

The forests contain large quantities of timber of vast proportions, and of many valuable kinds, of which may be mentioned white and red oak, black walnut, white ash, and many other varieties, the transportation of which will form an important item in the railway traffic.

Amherstburg, an incorporate town, the western terminus of the Railway, situated on the navigable channel of the River Detroit at its junction with Lake Erie, has the position, and contains the elements, for being a large and flourishing town; its natural advantages are such that there is direct lake and river communication from thence to the Atlantic seaboard, and to the head of Lake Superior, nearly 2,000 miles,—iron, coal, timber, and all other materials necessary for the construction and maintenance of a railway can be landed on its wharves. It also possesses a valuable bed of limestone of a very superior description, long known and prized for building purposes in the city of Detroit. The western part of the Province, to the extent of 100 square miles, has no stone, and from the situation of these quarries, without railway communication, they were not heretofore accessible to the interior; the operating of this railway will not only furnish the boon of good stone and lime to the inhabitants at a cheap rate, but will cause a considerable trade for the town and Railway.

St. Thomas, the eastern terminus of this Railway, and the western terminus of the Eastern Section, is a flourishing market town, in the centre of a fertile and highly cultivated country, and peopled with an enterprising and go-ahead population, and will become a place of much importance from its being the point of intersection and junction of the London and Port Stanley, Railway, as well as being the terminus and natural resting place for the two divisions of the Great Southern Railway; it is also favorably situated as regards mill and manufacturing sites, and, once put into connection with the rest of the world, by the Iron Horse, will materially contribute to the revenue of the Railway.

The Municipalities and farmers of the country through which the line passes will receive immense benefits from the construction of this Railway, and it therefore behoves them to come forward and take stock liberally, and put the charter at once into effect; it is

only by activity and energy that these benefits can be realized. The following quotations from the Chief Engineer's Report, to the Legislature of the State of New York in 1854, will at once place these advantages in their true light:

"The State of New York, in little more than a quarter of a century has constructed a thousand miles of Canals at a cost of forty millions of dollars, while her people in their individual capacity have built two thousand five hundred miles of railroads, at a cost of one hundred and twenty-five millions of dollars, which has doubled the population, and quadrupled the value of property in the State." Here is a State expending \$165,000,000, and instead of being poorer, they increase the value of their property four fold. Was the great expenditure made for the wants of the State of New York alone? Are the inhabitants of Western Canada and the future Shareholders of the Great Southern Canada Railway not interested in it? Hear what the same great authority says: "Lying directly west of us there is a district of ten times the area of this State, of the most fertile land on the globe, which during this period has been wrested from the possession of its savage aboriginal owners, and now forming one-third of this great confederacy, in population and production, and that through this district more than seven thousand miles of water line existed, and that in addition, sixteen hundred miles more of artificial water lines and eight thousand six hundred miles of railroad have been built, nearly all of which are connected with the main trunk water and railroad lines passing through this State."

It may be perfectly superfluous to state a fact so well known, that Canada is the Great Highway between these two extremes, and that the Great Southern Railroad is the shortest route; the traffic is already made at either end, and the results, both to the country and shareholders, will undoubtedly exceed their most sanguine expectations.

#### CAPRICE OF LAW.

At an examination of two persons, William and James Young, at Janesville, Wisconsin, for placing obstructions on the track of the Milwaukee and Mississippi Railroad, the evidence was sufficiently strong to warrant the magistrate in committing them for trial. Bail was fixed at *five hundred dollars*; hardly more than would be required for the smallest offence. And yet we have here a capital crime, a crime which might have been attended with tremendous loss of life, on the part of persons who had never injured the perpetrators. If that magistrate had had a wife or daughter murdered by the wretches, it would have taught him to appreciate the terrible guilt of such an atrocious attempt at wholesale murder. There is no crime, not even murder in its blackest and foulest aspect, that can compare in wickedness or enormity with the attempt to destroy a railroad passenger train. The object is generally retaliation on the company for a supposed injury; and for this, these human fiends will deliberately endanger the lives of hundreds. It is time our magistrates began to award a punishment commensurate with the act.

## Miscellaneous and Mechanical.

### NEW PATENT CAR BRAKE.

We have a model left in our office by W. W. Laman, of a new Car Brake, which to us appears likely to ensure the objects aimed at. The principle of the brake is scientific, and in practice it cannot be far from accurate. The ordinary brake locks the wheel and holds it still, while the impetus of the train thrusts it forward sliding on the rail. This produces a flat spot on the wheel which in turn produces an irregularity in movement and an unpleasant jar. Now the brake of which we speak avoids the difficulty in a simple and economical manner. When the brake is applied, the reversion takes place by means of circular cushions of wood, brought in contact with the inner surface of the wheel which thus reverses the motion of the other, and the impetus of the train is destroyed.—The objection is sometimes made by those who do not look beyond the surface that both pairs of wheels will slide.

A moment's reflection will show, however, that this is not practically nor philosophically the case. When the train is moving, the trucks are forced along by a pivot in the centre on which the car body is sustained. The tendency of this is to throw the greater weight on the front wheels of the truck. And it is this circumstance which causes them when the brake is applied to reverse the back wheels of the truck, and thus the impetus of the train is the power which stops itself. This power continues its operation with decreasing intensity till the train is brought to a stand, when the motion of the wheels exactly compensate each other. If now it is desired to apply the brake when the train is moving backwards, the explanation is still the same. The weight is mainly thrown on the pair of wheels first in the direction of the motion, and these will always reverse the others.—Hence the wheels can never wear flat, whatever wear there is, must always be uniform in the circumference. This is one great point of advantage. Another is the effectual operation of the brake, the mere sliding of the wheel causes but little friction; while the absolute reversing of the back wheels at the same velocity as that at which the front wheels are moving forward, adds greatly to the friction and consequent destruction of motion. It is stated that with this brake, a train moving at the rate of thirty five miles an hour, may be stopped in a distance of thirty rods. The points of pressure in applying the brake are not slides, they are rolling fulcrums, and therefore wear but little. The brake has been well tested at the east, and is said to be sufficiently economical to warrant the belief that it will be adopted, extensively, both at the east and west.



## HUNTING IN EARLY TIMES IN THE VALLEY OF THE OHIO.

The chief business of a frontier life was hunting. The preservation of life from day to day depended on the skill and fortitude with which it was pursued. It therefore constituted the highest dignity and enjoyment of a backwoodsman. A great hunter was his beau ideal of a great man. So dependent were our females at first on the produce of the hunt, "that it was no uncommon thing for them to live for several months without a mouthful of bread. It frequently happened that there was no breakfast until it was obtained from the woods."

Moreover, fur and peltry were the people's money. They had nothing else to give in exchange for rifles, salt and iron on the other side of the mountains. In illustration of this currency which estimated property in bucks, that is their skins, instead of dollars and pounds—"a buck was valued at one dollar, a doe at half a dollar, it is believed." This may be exemplified by the following copy of a certificate recorded in Col. Morgan's journal: "I do certify that I am indebted to the bearer, Captain Johnny, seven bucks and one doe for the use of the States, this 12th April, 1779. Signed, Samuel Sample, Assistant Quartermaster. The above is due to him for pork for the use of the garrison at Fort Laurens. Signed John Gibson, Colonel."

This is only a specimen of the paper currency of the frontier. Col. Gibson was the commander of this premature post on the west bank of the Tuscarawas, about seventy miles west of Fort McIntosh, a little below the mouth of Sandy creek. The certificates of which the above specimen is furnished, were redeemed, most likely, in other paper or goods, by the Indian Agent at Fort Pitt. This traffic was denied, in a great degree, to the far West, as Kentucky and the western portion of North Carolina, or the Holston settlements; owing to its distant position and the hostile state of the country, while the French settlements on the Wabash and Mississippi carried on a trade with New Orleans, then prohibited to the more eastern parts of the Ohio Valley.

The exhilarating chase, so animating at any time, but stirring indeed, when the Indians might be lurking in any canebrake, was principally followed in the fall and the early part of the winter, after deer; during the whole winter and spring, for the fur animals. The season for hunting was often expressed by saying that "fur was good in every month whose name contains the letter R." As soon as the fall of the leaf had taken place, and the rains and light snow had come on, the frontier men, after having acted the part of husbandman, as far as the hostile condition of the country would admit, longed to be in the woods after the game with all the restless eagerness of the passion for hunting. "They became uneasy at home; everything about them became disagreeable. The house was too warm, the feather-bed was too soft, and even the good wife was not thought for the time a proper companion. The mind of the hunter was occupied with the camp and the chase. I have often seen them get up early in the morning, at this season, walk hastily out, and look anxiously to the woods, walk into the house, and cast a quick and attentive look at the rifle, which was always suspended to a joist, by a couple of buck horns or little forks. His hunting dog, understanding the intentions of his master, would wag his tail, and

by every blandishment in his power, would express his readiness to accompany him to the woods. A day was soon appointed for the march of the little cavalcade to the camp. Two or three horses furnished with packsaddles were loaded with flour, Indian meal, blankets and everything else requisite for the use of the hunter."

A hunting camp, or what was called a half-faced cabin or camp, was formed sometimes with a large log for its back; eight or ten feet from this, a couple of stakes were driven into the ground to receive the side-poles, and opposite to them two others, eight or ten feet from the former. Thus the sides of the camp were formed. The roof slooped from the front to the back; this was covered with slabs, skins or blankets; and if it was the spring of the year, the bark of the hickory or of the ash tree was employed. The front was left entirely open, and the fire kindled there. The openings between the poles were stuffed with moss and dry leaves, which formed both carpet and bed.

Such were the temporary shelters from the inclemencies of the weather, that were raised by the hunters in a few hours. A little more labor (but that was a hateful necessity to the free and independent, [might we not rather say the lazy !] habits of the pioneers,) might have rendered a hunting camp proof against any attack of the Indians. As it was, vigilance did not always protect the white hunters from surprise and death in their camps from the Indians.

"The site of the camp called for the aid of the best sagacity of the woodsman to shelter it from the north and west winds. Nor was the situation of his camp the only way in which a hunter could show his wood-craft; so far from it, a skillful hunter could tell by the state of the weather, before he left his permanent home, where he should meet with the game, whether in the bottom, in the sides, or the tops of the hills. In stormy weather, the deer always seek the most sheltered places, and the leeward side of hills. In rainy weather, in which there is not much wind, they keep in the open woods on the highest ground. In all situations the hunter required to know the direction of the wind, in order to sit on the leeside of the game. For this purpose, he would put his finger in his mouth, until it got warm, and then raising it above his head, the side of his finger which first became cold would tell him the course of the wind, and the direction of the chase would be accordingly modified."

The points of the compass too were as necessary in the waste of the woods, as in that of the waters. The instrument for pointing out the navigation of the forest, was the appearance of the bark and the moss on the trunks of trees. The bark of an aged tree is much thicker and much rougher on the north side."

"These were only part of the tactics of the hunter; he was constantly on the alert with all his experience and knowledge of the ground, not only to gain the wind of the game, but to approach it without being seen. If he succeeded in killing a deer, he skinned it, and hung it up out of reach of the wolves; the hunter then might resume his sport, and follow it till evening, when he would repair to his camp, kindle a fire, and together with his fellow-hunter, if he had one, enjoy the fruit of his day's toil. Then after supper, the adventures of many a days' hunting, the spike buck, the two and three pronged, the doe and

the barren doe, or the surly bear, the fierce buffalo, or the leaping panther, (or painter, as is the pronunciation of the frontier,) or above all, the wild Indian, beguiled away the long evening, until the fatigues of the day wrapped the musers in an imperfect repose and wakeful sleep. After hunting for some time on the same ground, the hunter could, it is said, distinguish the different gangs of deer so as to know one flock from another. Often an old sagacious buck would, by his wary maneuvers, save his gang from the huntsman's skill; the parties seemed pitched against one another, at most unequal odds, however,—life on the one hand, against sport on the other. Occasionally it would happen, "as time and chance happen to all animals," that through a whole season a hunter would be foiled by some remarkable antagonist, and the antlered hero would still be left to lead his spotted descendants a little longer. If, however, the craft of the hunter brought down the pride of the woods, the victory was enjoyed with no small boast on his part, and triumph on that of his companions.

Thus the mimic war went on; but if the weather were unsuitable for hunting, then the skins and carcasses of the game were taken into the settlements, whenever sufficiently near, and disposed of.

It was pleasing to know that amidst the cares and dangers of the forest, many of the hunters would not hunt on Sundays. Some from the religious feelings of former years, and other states of life, while others who entertained no particular veneration for the birth day of creation, used to say, "that whenever they hunted on Sundays, they were sure to have bad luck all the rest of the week."

## ROCK ISLAND BRIDGE.

We learn from the *Davenport Gazette* of June 21, that the work on this structure is proceeding rapidly. The *Gazette* says: "Since the decision of Judge McLean has removed all doubt with regard to the construction of the Railroad bridge across the Mississippi at this point, the force on that immense structure has been increased, and the work is more rapidly progressing. The masonry of the bridge spanning the slough on the Rock Island side of the river was completed last fall. One span of that bridge is now finished and the balance will be in readiness for the iron in from two to three weeks. The abutments for the bridge across the main channel were completed last fall, and on Monday last the first pier in the Mississippi was finished. Two others are just above the water and the coffer-dam for a fourth is erected. Work has also been commenced on the great crib in which will stand the grand pier for the draw to swing upon. These, with one other pier, will complete the work in readiness for the superstructure. We can see nothing to prevent the contractors finishing the bridge in readiness for the cars, before the frosts of another winter shall check their operations. As the railroads hence to Iowa City and Muscatine are both to be completed by the ensuing winter, it is highly desirable that the bridge be finished by that time.



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHARES.	OFF'D.	ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872.....	7 1872					
Baltimore and Ohio.....	Transferable. Taxed.....	6 1885	79 1/4		100	44	44
Do do.....	Coupons. Not Taxed.....	6 1875					
Do do.....	" ".....	6 1880					
Do do.....	" ".....	7 1860					
Do do.....	" ".....	6 1885					
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866	98		50	42	
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866					
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870	98	99		79 1/2	80
Chicago and Mississippi.....	1st " ".....	7 1862					
Do do.....	2d " ".....	7 1874	65				
Chicago and Aurora.....	1st " ".....	7 1866					
Cincinnati, Newcastle and Mich.....	Real Estate.....	7 1859					
Cleveland, Columbus, and Cincinnati.....	1st mortgage, convertible.....	7 1859			100	109 1/2	110
Do do.....	No mortgage, convertible.....	7 1855					
Cleveland and Mahoning.....	" ".....	7 1861			100		
Cleveland, Painesville, and Ashtabula.....	1st mortgage.....	7 1861					
Do do.....	2d " not convertible.....	7 1861					
Cleveland and Pittsburgh.....	1st " convertible.....	7 1860				58	59
Do do.....	1st " 2d sec. convertible.....	7 1873					
Cleveland and Toledo.....	1st mort. not conv. '73.....	7 1863	93	94	50	93	94
Cleveland, Zanesville, and Cincinnati.....	" ".....	7 1867				77	78
Cincinnati, Hamilton and Dayton.....	1st mortgage " till 1855.....	7 1867					
Do do.....	2d mortgage.....	7 1860	88	90			
Cincinnati, New Castle and Michigan.....	1st mortgage, real estate, conv.....	10 5 & 10 y's	27	30			
Cincinnati Western.....	" ".....	8 1855	44 1/2			15	15
Cincinnati, Wilmington and Zanesville.....	2d " ".....	7 1855	65	68		40	45
Cincinnati, Indianapolis and Chicago.....	" ".....	8 1859					
Cincinnati and Chicago.....	Real Estate.....	7 1862	40			11	15
Columbus, Piqua and Indiana.....	1st mortgage, convertible.....	7 1862	75	76			
Do do.....	2d " ".....	7 1860	60	61			
Columbus and Xenia.....	1st mortgage, convertible.....	7 1859				93 1/2	100
Covington and Lexington.....	2d " " till 1862.....	7 1863	60	65	50	27	28
Do do.....	Income.....	10 1860	70	75	50	20	22
Dayton and Michigan.....	1st " ".....	7 1867					
Dayton and Western.....	1st " ".....	7 1862					
Dayton, Xenia and Belpre.....	1st " ".....	7 1864	26	30			
Eaton and Hamilton.....	1st mortgage.....	7 1862		60	25	36	37
Erie and Kalamazoo.....	1st mort. guaranty Mich. S. R. R.....	7 1862					
Evansville and Crawfordsville.....	1st mortgage.....	7 1860	80	81			
Fort Wayne and Southern.....	" ".....	7 1860				12 1/2	14
Franklin and Warren.....	" ".....	7 1860					
Galena and Chicago Union.....	Pledge of second section, convertible.....	10 1853-6	92 1/4		100	109	110
Hillsboro and Cincinnati.....	1st mort.....	7 1855	55	60	50	92 1/2	95
Illinois Central.....	1st mortgage, not convertible.....	6 1875	85	86	100	95	100
Do do.....	Freeland.....	7 1866	82	83			
Indiana Central.....	1st mortgage, convertible.....	7 1866	63 1/2	75	50	45	50
Do do.....	1st " ".....	10 1857		80	25	50	50
Indianapolis and Bellefontaine.....	2d mortgage.....	7 1860-1		75	50	50	50
Indianapolis and Cincinnati.....	1st " ".....	7 1861	80	82	50	62	62
Indianapolis and Lafayette.....	1st " not ".....	7 1861			50		
Jeffersonville.....	1st " ".....	7 1867			50	36	
Junction (Ohio).....	Real Estate.....	10 1864	72	73	50	11	15
La Crosse and Milwaukee.....	1st mortgage, not convertible.....	6 1863	77	82	100	12 1/2	
Do do.....	" " till 1855.....	7 1861			50	98	101
Little Miami.....	" " unconvertible.....	7 1858	9		100		
Louisville and Nashville.....	1st mortgage, convertible.....	7 1873					
Lyons', Iowa, Central.....	1st mortgage, convertible till 1855.....	7 1853-6		75	50	30	32
Mad River and Lake Erie.....	2d " ".....	7 1866		75			
Do do.....	Dividend.....	7 1860		75			
Madison and Indianapolis.....	1st mortgage, convertible after 1853.....	6 1861			50		
Marquette and Cincinnati.....	Domestic Bonds.....	7 1868	57 1/2	60	50	3 1/2	34
Do do.....	2d " ".....	7 1868			50		
Hillsboro and Cincinnati.....	1st " ".....	7 1868					
Maysville and Big Sandy.....	1st mortgage, convertible.....	6 1873			50		
Maysville and Lexington.....	No mortgage, convertible.....	8 1860	97			103	104
Memphis and Charleston.....	" " not ".....	8 1855-6					
Michigan Central.....	1st " ".....	8 1857-8					
Do do.....	1st " " 1857.....	7 1860-90	100			109 1/2	110
Michigan Southern.....	1st mortgage 6s. 1884.....	8 1862					
Milwaukee and Mississippi.....	" ".....	10 1858-62			50	15	20
Mobile and Ohio.....	1st " on 1st section, convert.....	8 1864-75					
Nashville and Chattanooga.....	1st " convertible.....	6 1873	102 1/2	104			
New Albany and Salem.....	1st mortgage, not convertible.....	7 1867			100	101 1/2	103
Do do.....	2d " convertible.....	7 1871	86 1/2	87		52 1/2	54
Do do.....	" ".....	7 1883	95	95			
Northern Cross, Ill.....	1st mortgage, convertible.....	8 1873					
Northern Indiana.....	1st " not convertible.....	7 1861	79			97	98
Do do.....	1st " Goshen line.....	8 1868	90	91			
Do do.....	Construction Bonds.....	7 1861	61				
Ohio Central.....	1st mortgage, convertible.....	7 1860	55	57	50	16	20
Ohio and Mississippi.....	2d " ".....	7 1867					
Ohio and Indiana.....	1st " ".....	7 1863					
Ohio and Pennsylvania.....	Income. No mortgage, convertible.....	7 1872			50		
Do do.....	" ".....	7 1862					
Pacific, Mo.....	1st mortgage, convertible.....	7 1866	101 1/2	105		101	101
Panama.....	" Guar. City of Baltimore.....	7 1873					
Parkersburg (or Northwestern Va.).....	1st mortgage, convertible till 1860.....	6 1880			50	43 1/2	40
Pennsylvania.....	1st " ".....	7 1872			25	22	25
Peru and Indianapolis.....	1st " ".....	7 1872			50		
Rock River Valley Union.....	1st " ".....	7 1860					
Sandusky and Mansfield.....	2d " ".....	10 1853-7					
Do do.....	1st " income.....	7 1861	50	51	50	50	51
Scioto and Hocking Valley.....	" ".....	7 1861					
Southwestern, Tennessee.....	1st mortgage, convertible.....	7 1865					
Springfield and Columbus.....	1st " ".....	8 1862-72	88 1/2	90			
Steuernville and Indiana.....	2d " ".....	8 1865					
Terre Haute and Alton.....	1st " ".....	6 1866					
Do do.....	1st " ".....	7 1863	87	88	50		
Do do.....	2d " ".....	7 1863					
Do do.....	Guar. of C. C. & C.....	1883					







## REPORT OF THE BANK COMMISSIONERS.

The annual Report of the Bank Commissioners of the State of Connecticut, makes a volume of 166 pages—80 pages of which are devoted to Banks, and 86 to Insurance, Savings Banks and Building Associations. It appears that on the 1st of April last, the amount of

Capital was.....	\$17,145,451
Circulation.....	6,833,388
Liabilities.....	31,338,502
Specie.....	812,133
Loans.....	23,999,035
Deposits.....	3,805,235
Loans out of the State.....	3,556,474

The amount of deposits has decreased something over one million of dollars, owing probably to the act of 1854 forbidding Banks to pay over 4 per cent. interest on deposits. The amount of capital has increased during the year one million and a half, and has doubled since 1849. The amount of circulation has decreased largely. In 1854 it was \$11,207,966. This year it is reported at \$6,833,388. This is one of the results of the serious monetary pressure the past fall and winter. The amount of specie has fallen off four hundred thousand dollars, or one third. The line of discounts has fallen off about three and a quarter millions, but is reported higher than in any previous year except the last and in 1853, the amount being in the latter year about \$2,000,000 more than April last. The amount of Loans out of the State have decreased about two millions. The Commissioners pronounced all the Banks in the State in a sound condition.

Whole number of Banks.....	67
No. with special charters.....	54
No. of Free Banks.....	13
Whole amt of capital.....	17,145,451
Chartered capital.....	14,197,382
Free Banking Capital.....	2,948,169

Five new Banks were chartered by the General Assembly of 1854, only one of which—the Stafford Bank, with a capital paid in of \$46,076 54—has gone into operation. The Elm City Bank of New Haven organized, called in one installment of 10 per cent. of its capital, which was paid; after that, "owing to the stringency in the money market," its "calls" were not answered. (This Bank has procured an amendment to its charter, from the Legislature now in session, by which it is permitted to go into operation on a much smaller capital than it at first contemplated.)

There are 26 Savings Banks in the State, organized under charters granted by the Legislature. The aggregate amount of money deposited in them, including surplus funds, is \$10,006,131 18. This enormous amount of money is deposited by 54,589 persons, being an average of \$108 30 to each person. The Commissioners report that these institutions are safely managed. In 1847, the amount of deposits was only about three and a quarter millions, and the number of depositors 31,926. Seventeen Savings Banks have been established since that time.

Of the Building and Savings Associations, established under the act of 1850, the Commissioners report that there were 48 organized on the first day of January last, with

Stock paid in.....	\$1,576,062
Deposits.....	1,625,395
Total.....	3,201,457

These institutions are allowed to take a bonus in addition to the legal rate of interest, on their loans. The Commissioners remark that this bonus varies from one-fourth to two per cent per month; or from 9 to 30 per cent. yearly, including the legal rate of interest.

We quote from the report made by these Institutions to the Commissioners, the amount of Stock paid in, and the dividends made by them.—*Hartford Times, June 23.*

## SUMMER-STABLED HORSES.

We give below an article containing some valuable suggestions on this subject from the *Albany Country Gentleman*. They may be found useful where companies are compelled to keep horses for use in entering cities.

Horses which have nothing but dry hay and grain all the year through, must suffer both in comfort and condition. Like other domestic animals, they relish variety in their food; and the tendency of such variety to improve the condition of animals has been so often noticed, as to have passed into the common proverb—"Change of pasture makes fat calves."

Truths of this kind seem to be very generally forgotten by some of those who have occasion to keep their horses in the stable throughout the whole year. Many seem to forget or ignore the fact, that which while dry hay and unbruised grain may be the handiest and least troublesome feed for their horses, these useful servants are thereby curtailed of comfort and prevented from enjoying that amount of good health and of ability to endure labor, which they might obtain by a somewhat different mode of feeding. Various methods might be employed to secure some variety in the food of summer-stabled horses according to the varying circumstances of their owners. Roots, corn for soiling, grasses cut green, mashes, and other things, might be occasionally introduced as agreeable and wholesome changes.

At the present time, when hay and grain are so high, economy as well as the comfort of the horses might be consulted by some occasional change of food, and where nothing can conveniently be had but hay and grain, something desirable might be affected, both as regards expense and the health and comfort of horses, by cutting the hay quite fine and steaming it occasionally, and by grinding or bruising the grain. Hay cut and grain ground will go much farther than in the natural state. We know that a horse may be kept in good condition on a daily ration of three pecks of cut hay and four quarts Indian meal; and if the yearly amount of such an allowance is calculated it will be found that it requires about a bushel of corn per week, or fifty-two bushels per year, and one ton of hay, which should be of the very best quality for feeding a horse during a whole year. This is economical; and if boiling water should be poured over a part of the hay occasionally, and the meal with a little salt added to it, it would give a variety and a degree of succulence to the otherwise dry feed, which would make it more relishing and wholesome.

We think this hint, if practically applied, will prove of service both to man and beast—both to horses and their owners. We may add here, being forgotten in its proper place, that horses will sometimes prefer boiled turnips or ruta bagas to raw ones, and meal will make them still more acceptable.

—A gentleman in Iowa has entered into the speculation of hunting elk, to tame and bring East. He will, no doubt, find his investment remunerative.

PENNSYLVANIA CENTRAL RAILROAD.—The Earnings of this road for the month of May show an increase of near ten per cent over the corresponding month last year. Annexed are the comparative figures:

Earnings, May, 1855.....	\$295,711 94
Earnings, May, 1854.....	297,137 93
Increase.....	\$23,573 99

Will be Ready on or about the first of August next,

## SWAN'S NEW TREATISE

FOR

Justices, Lawyers, Business Men, etc.,  
Under the Late JUSTICES' ACT and the CODE.

By Hon. J. R. SWAN,

Judge of the Supreme Court of Ohio.

PRICE \$4.50.

THIS Work embraces the Law, together with the decisions of the Courts of this State, as reported down to February, 1853, upon, among others, the following subjects:—

Bills of Exchange, Checks, and Promissory Notes;  
Assignments of Claims; of Negotiable;  
Bills of Lading;  
Mortgages on Personal Property, with Forms, etc.;  
Sales;  
Liens of Mechanics, and Furnishers, etc., of Boats, Buildings, etc., with Forms;  
Partnerships, General and Special;  
Sureties and Guaranties;  
Common Carriers;  
Hirer, Borrower, and Depositor etc., of Goods;  
Actions, etc., against Water Crafts, with Forms, etc.;  
Frauds;  
Principal and Agent;  
Contracts, generally;  
Husband and Wife—Parent and Child—Guardian and Ward—Infants;  
Inn Keepers;  
Forcible Entry and Detention, with Forms, etc.;  
Forms of Deeds, Mortgages, Powers of Attorney, Warrants of Attorneys, to Confess Judgment, Agreements, Wills, etc., etc.

The new Justices' Act has changed entirely the Forms of Process, Bonds, etc., and the mode of conducting Actions before Justices of the Peace. It makes the provisions of the Code applicable to proceedings before Justices, which are, in their nature, applicable, without designating what provisions of the code are to govern Justices. The present work contains all the provisions of the Code, which are deemed applicable to proceedings before Justices, arranged under proper heads, according to the subject. It also, contains the Forms of Process, Affidavits, Orders, Undertakings, Docket Entries, and the Incidents generally of Actions before Justices of the Peace, as altered and modified by the New Justices' Act and the Code.

The general arrangement of the work is, in many respects, similar to the 6th Edition of the Treatise; but new titles and subjects have been introduced, and there is no title of Law retained from the former Treatise, which has not been either re-written, or modified and enlarged. No labor has been spared to make the work acceptable to Justices, and useful to those who desire to consult the general principles of Mercantile Law.

The volume will be elegantly printed in large 8vo., and firmly bound in Law Sheep, and will be published on or about the first day of August next.

H. W. DERBY, Publisher, Cincinnati.

RECENTLY PUBLISHED.

## SWAN'S NEW REVISED STATUTES.

Derby's Edition—Price \$5.00.

The only Authorized Collation of the Statutes in Force.

THIS volume contains the collated Statutes of Ohio, in force from August 4th, 1854, with reference to prior Laws, in one handsome volume.

It contains all such Laws, of a general nature as are in force, arranged in alphabetical order. The form is that adopted in the publication of the Old Statutes.

The book has been approved by the ablest legal talent in the State, and it is the expressed opinion of the Bar, that there is no man better qualified than its distinguished author, to perform with accuracy, the labor required in the compilation of so large and comprehensive a work.

No care or expense has been spared to make the work perfect and reliable in all respects, and it is offered to the profession as the authorized embodiment of the existing Laws of the State to be used in her Courts, and by all her public officers.



**Parry's Anti-Friction Box,**

PATENTED IN 1833.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICH & CO., Patentees.

90 South Fourth street, Philadelphia.

**READ THE FOLLOWING CERTIFICATES.**

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE.

TRANSPORTATION DEPARTMENT, PENNA. R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,  
H. J. LOMBART, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not wear or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. Parry, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DURAND, FULTON and TILTON.

Manufactured by J. M. BROWN.  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

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**L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of

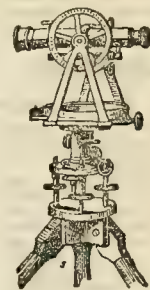
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including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

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MANUFACTURERS OF

Surveyors' &amp; Engineers'

Instruments, Theodo-

lites, Transits,

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REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

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Bank Notes, Drafts, Bills of Exchange,

RAILROAD BONDS, &amp; CERTIFICATES

Engraved in a style unsurpassed.

NOTICE TO CONTRACTORS.—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c. of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Ohio (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburch and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

The letting at Nashville will be postponed until Saturday, August eleventh.

may 17-4t.

[Railroad Journal please copy.]

BECKER &amp; RUST,

General Contractors.

**GEO. D. WINCHELL & 1 RO.,**

172 Elm Street, between 4th &amp; 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

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**STEAM PUMPING MACHINE,**

WOULD respectfully invite the attention of RAILROAD Companies and the public generally to their Pump, as the best Pump now in use; they are simple in their construction, compact, durable and not likely to get out of order; we have adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes when a Pump can be used. Also, for forcing a large body of water to a great height or distance.

These Pumps are used on nearly all the principal Railroads South and West.

Silver Medal (the highest premium) awarded at the late Fair of Ohio Mechanics' Institute.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled.

June 21, 1855-1y

**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

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AUBIN'S PATENT.—We are agents for this new and improved furnace, and having had one in operation at our office for several months past, can confidently recommend it as being simple in its operation, occupying little room and furnishing a pure and beautiful burning gas. From the peculiar arrangement of the retort it is not liable to burn out, thus saving a great part of the expensive repairs of other furnaces. We are prepared to erect these furnaces at our own risk and warrant them to produce good gas.

T. WRIGHTSON &amp; CO.,

167 Walnut-st., Cin'tl.

**"GARDNER'S ROCK DRILL."**

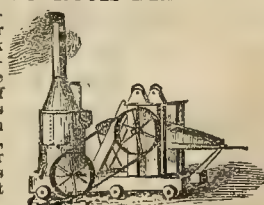
DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.

A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
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**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents,**  
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**WHALEBONE AND STEEL WIRE BRUSHES.**  
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**For Core Bars, Awn-**  
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**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**  
**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**  
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More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

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**CELEBRATED CAST STEEL,**  
 For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length).

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STOP COCKS, Bibb, Flange, Valve, Gauge, and Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes, Couplings, Salt Well, and Hose Joints; Steam Whistles, Distillery Work, General Brassers, Anti Friction Metal, Spelter Solder, and Copper Rivets.  
 Pumps of all descriptions, Brass and Composition Castings, Dixon's best Black Lead Crucibles.

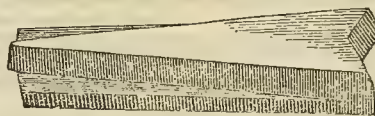
Also, Dr. Ransom's Patent Constant Suction Pump for Railroad Water Stations.

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RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared. mail-ly

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Gauges**

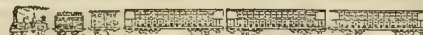
of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,  
 15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**Terre Haute & Richmond R. R.**



**Summer Arrangement.**

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A.M., arrives at Terre Haute at 11.55 A.M., connecting with the 12.30 P.M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P.M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P.M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P.M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P.M., arrives at Terre Haute at 4.45 A.M.

TERRE HAUTE TO INDIANAPOLIS.  
 MAIL TRAIN leaves Terre Haute at 7.10 A.M., arrives at Indianapolis at 10.42 A.M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P.M., arrives at Indianapolis at 3.15 P.M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855.

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.**

**SUMMER ARRANGEMENT.**

COMMENCING MONDAY JUNE 25th, 1855.  
 Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A.M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A.M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A.M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A.M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, etc.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 P.M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P.M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P.M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P.M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A.M., 1.25 and 6.00 P.M.

LEAVE RICHMOND 7.00 A.M., 10.30 A.M. & 6.20 P.M. LEAVE HAMILTON 6.00, 6.10 and 9.00 A.M.; 12.25, 2.15, 7.15 and 8.15 P.M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena & Rock Island,**  
 BY THE WAY OF THE  
**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in.....15 HOURS.  
 TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A.M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P.M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 6.00 P.M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50  
 " Lafayette.....50  
 " Terre Haute.....575

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.  
 The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
 D. M. MORROW, Superintendent.  
 feb. 8-ly



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,  
ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

FOR FREIGHTS IN EITHER DIRECTION

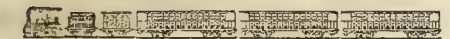
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 8f Baltimore.

**The Shortest, Quickest and Best  
ROUTE TO LOUISVILLE.**

MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.

**OHIO & MISSISSIPPI RAILROAD,**

ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER notice, the Passenger Trains will run as follows:

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.**

**For Indianapolis.**

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.**

**For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.51 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M., 2.30 P. M., 4.05 P. M., and 9.30 P. M.

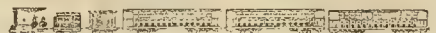
Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth Street, north side, four doors from Vine Street, opposite new Custom-house.

S. S. POST,  
Chf. Eng'r and Supt.

Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.  
W. S. BABCOCK, Agent,  
Sept. 5. St. Louis and Cincinnati Omnibus Line.

**1855. Winter Arrangement, 1855  
COMMENCING MONDAY, JAN. 29.**

**LITTLE MIAMI AND COLUMBUS, AND XENIA RAILROAD.**—Passengers by the 6 o'clock A. M. Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

**FROM CINCINNATI TO**

To New York in.....	32 1/2 hours.
To Philadelphia in.....	31 1/2 "
To Washington in.....	29 "
To Baltimore in.....	28 "
To Buffalo in.....	16 1/2 "
To Dunkirk in.....	15 "
To Cleveland in.....	9 1/2 "
To Sandusky in.....	8 1/2 "
To Pittsburgh in.....	14 "
To Wheeling in.....	10 1/2 "

**FOUR DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

**SECOND TRAIN.**—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Lancaster; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

**THIRD TRAIN.**—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Morrow.

**FOURTH TRAIN.**—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**FARE AND THROUGH TICKETS.**

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-boat Landing, or at the Eastern (Little Miami) Depot, East Front street.

WM. H. CLEMENT, Superintendent.  
P. W. STRADER, General Agent

**OMNIBUS LINE.**

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

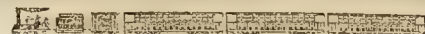
On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at Columbus at 2.65 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.25 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-1f.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 6.20 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.  
Indianapolis, March 22, 1855

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.  
On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fairmouth, Cullerville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.50 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,  
Superintendent.  
The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.****VIA LAWRENCEBURG.**

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and Lafayette for Chicago both morning and evening Trains, and at Chicago for South, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

Cincinnati, June 12, 1855. SIDNEY RICE, Agent.

**General Map Establishment,  
No. 3 College Hall, Walnut St., Cincinnati****E. MENDENHALL,  
MAP, BOOK & PRINT SELLER,**

Has constantly on hand  
GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND OUTLINE MAPS.

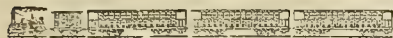
Anatomical Charts, Atlases and Gazetteers.  
Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES,  
DRAWING INSTRUMENTS, &c.

Publisher of the  
**Railway Map of the Western States,**  
In Sheet or in Pocket Case;  
The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
the LARGE MAPS OF CINCINNATI, and HAMILTON Co.,  
Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
**MAPS OF EVERY DESCRIPTION.**



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
**LOUISVILLE, KY.**



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
**OLMSTED, TENNYS & PECK,**  
Louisville, Ky.

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

**Norris' Locomotive Works,**

**PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch  
RICHARD NORRIS & SON.

**NUGENT'S COLLEGE**

OF

**ENGINEERS & MECHANICS,**  
PUBLIC SQUARE, CLEVELAND, OHIO.

**C. NUGENT, C. E., Principal.**

THE design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drawing, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
au.10.

**New Works on Civil Engineering.**

THE Field Practice of Laying out Circular Curves for Railroads. By John C. Trautwine, Civil Engineer.—4th Thousand, in pocket-book form with tucks.

—ALSO—

A New Method of Calculating the Cubic Contents of Excavations and Embankments, by the aid of Tables and 10 Engraved Plates of Diagrams. By John C. Trautwine, C. E.; 3d edition.

Price, one dollar each. Postage on the Curves, five cents; on the Excavations and Embankments, eight cents. For sale by **WILLIAM HAMILTON,**

Hall of the Franklin Institute,  
Philadelphia, Pa.

Sept. 21-3\*

**ENGINEERING!!**

The undersigned is prepared to furnish SPECIFICATIONS, ESTIMATES, AND PLANS, in general or detail of all kinds of

**Steam Vessels, Engines, Boilers, Mill Work, &c**  
Particular attention given to the superintending of **LOCOMOTIVES, TENDERS, CARS,**

**And Railway Machinery of every Description,**  
While under construction.

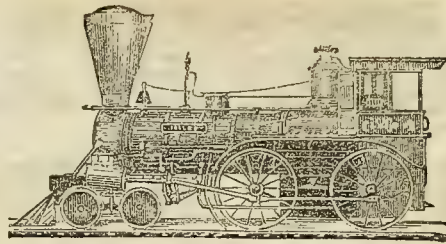
AGENT FOR THE PURCHASE of, on commission, all articles required for Railroads, Steam Vessels, Locomotives, Engines, Boilers, Machinery, &c.

General Agent for

**ASHCROFT'S STEAM GAUGE, ALLEN AND NOYES' METALLIC SELF ADJUSTING CONICAL PACKING, DUDGEON'S HYDRAULIC JACK.**

Also, for Water Gauges, Indicators, Steam Whistles,  
**CHAS. W. COPELAND,**  
Consulting Engineer,  
64 Broadway, N. Y.

Nov. 5 11

**LOCOMOTIVE WORKS.**

**NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafing, &c. &c.  
Feb. 13 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in **AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 percent, below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

**WILLIAM SHEKURNE,**

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS. JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH & RACE STS.



HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th. 1853.

m21-1f

**Indianapolis & Cincinnati Railroad.**

OFFICE—INDIANAPOLIS, IND.

Col. T. A. Morris,..... Pres't  
1y mar. 27.

**Indiana Central Railroad.**

OFFICE—INDIANAPOLIS, IND.

I. S. Newman,..... Pres't

**Buffalo & Erie Railroad.**

OFFICE—BUFFALO, N. Y.

G. Palmer, Pres't. Buff. & State R. R. } C. C. Dennis.  
C. H. Reed, Pres't. Erie & North E. R.R. } Supt,  
1y mar. 27.

**RICHARDSON'S**

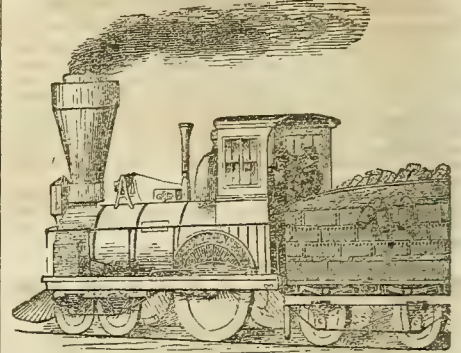
**PATENT**



**OIL CUPS**



For Locomotive and Stationary Engines. For sale by  
**BRIDGES & BROTHER, Agents,**  
May 17. 64 Courtland St., New York.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20\* **MOORE & RICHARDSON.**

**WASON'S**

**CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship, and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

**CHARLES WASON,**

Late of the firm of T. & E. Wason, Springfield, Massachu-sets.

**Railroad Car Findings. BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Castings Fitted Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Burrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Belts, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

**ALBERT BRIDGES,**

Late Davenport & Bridges, Car Manufacturers.

Cambridgeport, Mass.

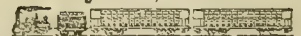
**ALFRED BRIDGES,**

Late Davenport, Bridges & Co., Fitchburg, Mass.

toC6

**CAR MANUFACTORY,**

**Dayton, Ohio.**



**THRESHER & CO.,** having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 23 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tynes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

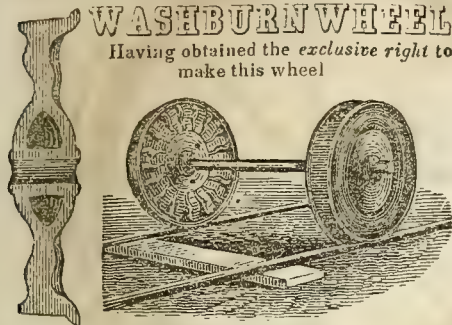
They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan. 25-†



**FULTON CAR WORKS,**

CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.

**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

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THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

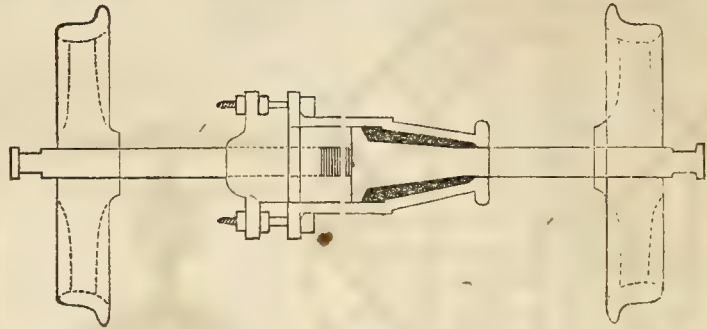
Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

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**DENNEY'S DIVIDED CAR AXLE,**

**PATENTED JANUARY 31ST, 1854.**

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

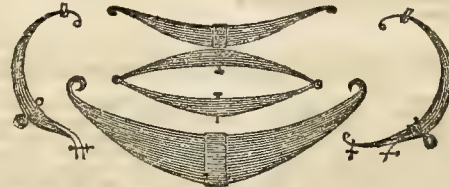
**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

**McDANIEL & HORNER,**

**LOCOMOTIVE AND CAR**  
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All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

**References.**

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**A. C. GRAY, Prest. New Castle Manuf. Co.**

**U. WELLS, R. R. Car Manuf. Petersburg, Va.**

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**PATENT**  
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We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec 27

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**REFERENCES.**

**Richard Norris & Son, Locomotive Builders, Philad'a,**

**Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "**

**Charles H. Fisher, Esq. "**

**Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.**

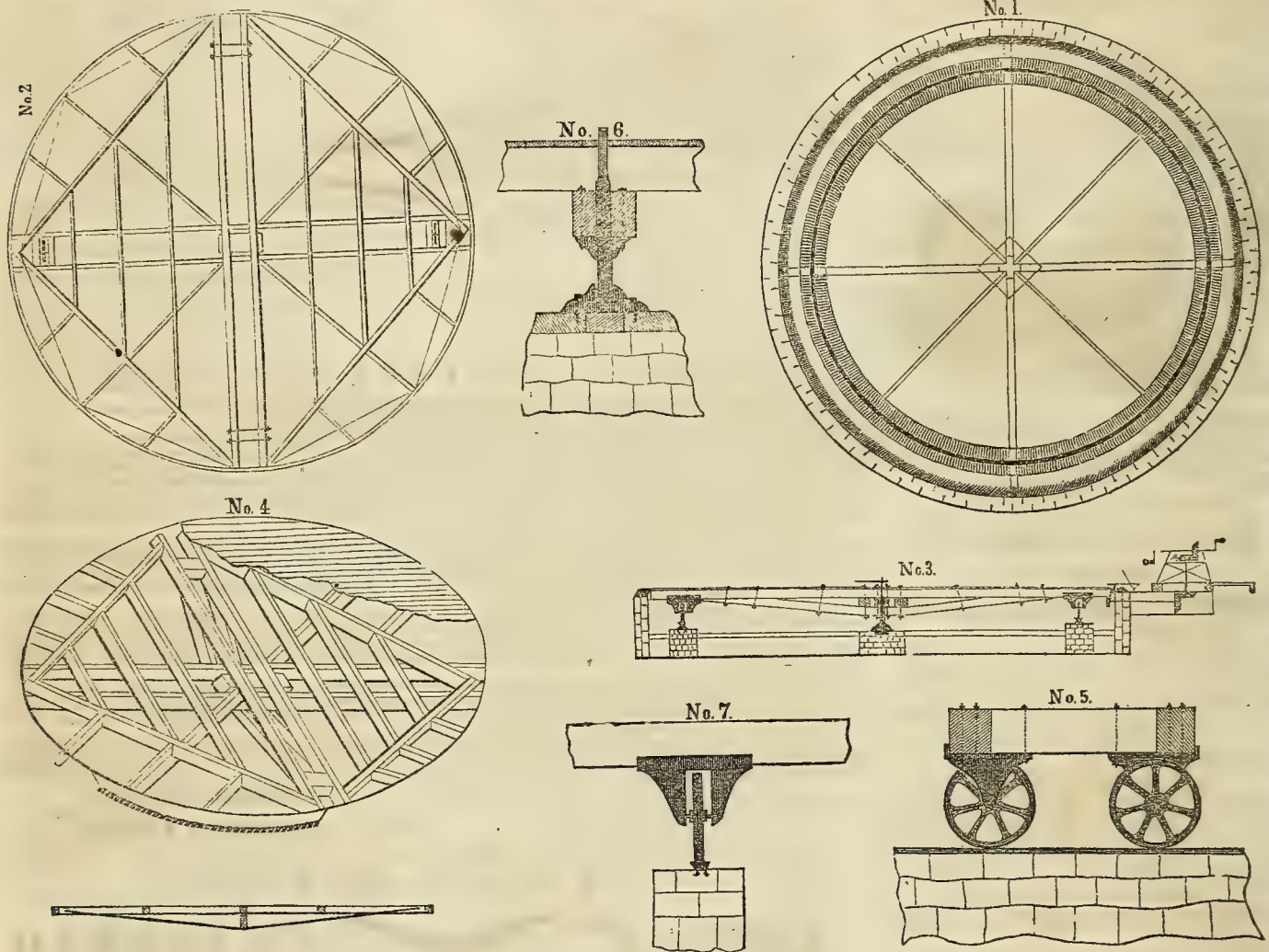
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Oct. 13-14.



# CARHART'S IMPROVED TURNTABLE.

Now building, for 13 Principal Roads in Ohio, Indiana, New York, New Jersey and North Carolina.



This Table, together with an Engine and Tender of 30 Tons Weight, can be turned by One Man in 25 Seconds.

RAILROAD COMPANIES in want of *Turntables* of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction.

The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh.  
J. Nottingham, Sup't, Marion, O.  
Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, North Carolina.  
Central North Carolina Railroad.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Michigan.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.  
Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of *Bank* and *Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the store track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step, through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

D. M. CARHART, Cleveland, Ohio.

## RAILROAD HOTEL. CINCINNATI, O.

THE GIBSON HOUSE, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.

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Suitable to be spiked in the Chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. Address, S. M'KENNA, Jan 11.-47. Box 705, Cincinnati P. O., Ohio.



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:  
THURSDAY MORNING,.....JULY 12, 1853.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

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DE BOW'S REVIEW.—The July number of our old friend is received. It contains interesting articles on the Development of Southern Industry, Texas and her Resources, the Physical Geography of the Sea, Agencies to be depended on in the construction of internal improvements, with reference to Texas, by a Texian, Introduction of new plants, etc. It is a very interesting number.

EARNINGS FOR JUNE.—Will our friends be kind enough to send us as early a possible the filled up blanks which we enclose to them.

VOL. III.—No. 20.

## CROPS, WEALTH, AND RESOURCES OF OHIO.

As the harvest has now commenced, and promises to be a great one,—we thought it would prove interesting to review the crops of past years,—and state the prospects of the present.

The returns of the crop of 1854, we have not yet received; for they are taken by the Assessors in the following years, and are at this time being returned to the Auditor. The crops of the four preceding years, we have thus:

### 1. OF WHEAT.

Acres sown.	Crop.
In 1850.....1,800,000	31,000,000 bushels.
In 1851.....1,657,252	25,709,225 "
In 1852.....1,624,715	22,962,774 "
In 1853.....1,422,000	17,118,311 "
Aggregate.....6,513,917	96,390,310 "
Average.....1,628,479	24,097,520 "

The average productions *per acre* were as follows, viz:

In the year 1850.....	17½ bushels.
In " " 1851.....	15½ "
In " " 1852.....	14 "
In " " 1853.....	12 "

The *largest* crops raised in the counties in three years, were raised in 1850, by the following counties:

Stark in 1850.....	1,071,177 bushels
Wayne ".....	1,050,000 "
Muskingum in 1850.....	1,003,086 "
Coshocton ".....	862,869 "

These four counties raised about *four millions of bushels*. But, neither of them have made since, a crop equal to that of 1850.

The *largest averages per acre*, were raised in the following counties, viz:

Erie, average.....	23½ bushels.
Montgomery, average.....	21½ "
Miami, ".....	21½ "
Seneca, ".....	20½ "

It is a very easy thing to *talk* about raising 40 bushels of wheat to an acre, and it has been done in Ohio, but not on a large scale.

The truth is, 20 bushels of wheat per acre is a large crop; and rarely attained in a large district of country.

### 2. OF THE CORN CROP.

Acres sown.	Crop.
In 1850.....1,677,000	61,800,000
In 1851.....1,664,000	61,171,600
In 1852.....1,730,188	58,165,000
In 1853.....1,826,493	73,436,000
Aggregate.....6,897,681	254,572,600
Average.....1,726,920	63,643,000

The aggregate amount of land, in both corn and wheat in these four years, was as follows, viz:

In 1850.....	3,477,000 acres.
In 1851.....	3,321,252 "
In 1852.....	3,354,903 "
In 1853.....	3,268,493 "

It seems, there were fewer *acres* planted in 1853, than in either of these years; but, the smallest amount of grain was produced in 1852. The *largest aggregate* crop was that of 1850, which amounted to 92,800,000 bushels, and the aggregate value of which was near *five millions*.

## 3. OF LIVE STOCK.

The Assessor's returns of Live Stock were as follows, viz:

	1852.	1853.	1854.
Horses.....	402,695	615,935	632,528
Cattle.....	1,136,700	1,646,195	1,772,667
Mules.....	2,992	3,222	4,704
Sheep.....	3,050,796	4,104,450	4,845,189
Hogs.....	1,299,746	2,498,792	2,887,015
Aggregate.....	5,892,929	8,868,644	10,142,163
Increase 1852 to 1853.....			50 per cent.
" 1853 to 1854.....			15 per cent.

The great increase of hogs from 1852 to 1853, arose from the fact, that prior to 1853, the swine under six months were not enumerated. It will be seen that the increase of *animals* is very great. This process shows a change in the agriculture of the state. The *acres ploughed* are diminishing, but the meadow and grass land increasing; and this process goes on in all countries, as the community grows older. In England the most valuable land is grass land; for, it supports the animals, which bring meat, and wool; which products are higher priced relatively, than any others.

## 4. CARRIAGES AND WAGONS.

The following are the lists for 1853 and 1854:

In 1853.....	225,415
In 1854.....	250,758
Increase.....	11 per cent.

## 5. WATCHES AND PIANOS.

If we may judge by these items, Ohio is blest with the most accurate time, and the greatest abundance of music.

	1853.	1854.
Watches.....	63,609	69,172
Pianos.....	3,928	4,712
Watches increased.....		10 per cent.
Pianos ".....		20 " "

The march of Piano Fortes is onward and we learn, by this, that the music dealers may calculate on selling about 1,000 pianos per annum, in the good state of Ohio.

## 6 RAILROADS.

The valuation of Railroad property was as follows:

In 1853.....	\$17,591,000
In 1854.....	23,878,577
Increase.....	\$6,287,577

## AGGREGATE BALANCE OF PUBLIC PROPERTY.

The increase in the value of taxable property in Ohio, is quite remarkable; and as it has been tested, by successive valuations, we must suffice it to be indicative of the real advance of the State in wealth. The following is the aggregate value for five successive years:

In 1850.....	\$439,876,340
In 1851.....	462,148,620 Inc. 5 per cent.
In 1852.....	507,581,911 " 9 "
In 1853.....	593,396,848 " 17 "
In 1854.....	866,929,982 " 45 "

We have then the entire property of the State *doubled in five years*.

The valuation of real and personal property was thus:



Value of Land and Houses.....	\$569,868,410
Personal Property.....	297,061,572

The growth of Ohio in wealth and strength is most extraordinary, and the crops of this year will probably give a new impulse to the agriculture of the state, which again reacts on all other interests.

### RAILROAD REPORTS.

#### REPORT OF THE STATE ENGINEER IN THE STATE OF NEW YORK.

In our first two issues in May we extracted from the report of the State Engineer of the State of New York, his remarks on the importance and necessity of regular and systematic reports of railroad companies. They add much to the confidence of the public and the security of stockholders; we propose today to give, in condensed form, the results of some of the reports of the roads in the State of New York.

There are, in the State of New York, 85 railroad companies, including the City railroads of New York; of these sixty-three made reports to the State Engineer. The items of information contained in these reports are grouped under the following heads: stock and debts of the railroads in operation in 1854; stock and debts of the railroads in progress of construction, and of those whose reports are imperfect; cost of construction and equipment of railroads in operation; cost of construction and equipment of the railroads in progress of construction; characteristics of the railroads in operation; do. do. in progress of construction; business of the year in passengers; do. do. freight; cost of maintenance of roadway for passenger and freight business; cost of repairs of machinery for passenger and freight business; cost of operating the road charged to passenger and freight business; earnings cash receipts and payments; classification of accidents.

From these condensed tables of the reports, deductions have been made and arranged to show the comparative cost of construction, of maintenance and of operating each of the roads of the state as follows: cost of construction and equipment per mile single track, including branches, sidings, etc.; average cost of locomotives and cars; cost of equipment per mile run by the trains; cost of maintenance of way per mile of road; do. do. per mile of single track, including branches, sidings, etc.; cost of maintenance of way, repairs of machinery and operating per mile run by the trains; cost of maintenance of way per mile run by the trains; cost of repairs of machinery do. do.; cost of operating the road do. do.; cost of maintenance of way, repairs of machinery and operating the road per passenger and per ton of freight carried one mile; cost of maintenance of way do. do.; cost of repairs of machinery do. do.; cost of operating the road do. do.; receipts from pas-

sengers, freight and other sources per mile of road; the transportation expenses, and their percentage of receipts; earnings and expenses per mile run by the trains.

In these several tables are a variety of the most useful and interesting information to the managers and stockholders of railroads. Information necessary to enable them to judge intelligently of the economy of management, and construction on the part of the roads in which they are interested. If our space would permit, we should condense the information contained in every table for the benefit of our readers; but we shall be compelled to content ourselves with a few of the leading items.

**GENERAL FEATURES OF THE ROADS OF THE STATE.**—The total length of road known to be in operation in the State of New York is 2,723 $\frac{3}{4}$  miles; in addition to which there is 803 miles of second track in operation, making a total length of 3,526 $\frac{3}{4}$  miles at present in operation.

The whole length of completed and projected roads in New York is 4,436 miles. As New York has an area of 47,000 square miles, when these roads are all completed there will be *one mile* of railroad to every *ten and a half square miles* of surface. The capital stock as by charters of sixty-four roads, 4,436 miles, \$114,102,200; the amount already subscribed is \$84,972,597. The amount of capital stock paid in on sixty-three roads, 4,406 miles, is \$69,473,458 52; the amount of funded debt on these sixty-three roads is \$68,230,997 42; the amount of floating is \$8,804,818 43. It will be seen from this that the capital stock per mile on these sixty-three roads is \$15,767 92, while the funded debt per mile is \$15,485 90; and the floating debt per mile is \$1,998 37. This gives a funded of a little less amount than the capital stock. This, as the experience of over 4,000 miles in New York is valuable, as it shows that in general a company may not expect to negotiate a funded debt exceeding in amount the capital stock subscribed and paid in.

The classification of expenditures of roads completed is as follows: for grading and masonry on nineteen roads, 1,623 $\frac{1}{4}$  miles, is \$20,742,690 21; for bridging on the same roads \$1,902,424 87. The cost of superstructure on twenty-one roads, 2,106 $\frac{1}{2}$  miles, is \$26,737,876 64. The grading, bridging, and superstructure on the same roads is \$63,822,911 21. The station buildings, engine houses and shops on twenty-two roads, 2,127 $\frac{1}{2}$  miles, have cost \$5,042,750 87; land damages and fences on same \$9,127,330 92. The locomotives on seventeen roads, 2,058 $\frac{3}{4}$  miles, have cost \$5,748,722 83. The cars of all kinds on nineteen roads, 2,110 $\frac{3}{4}$  miles, have cost \$6,726,243 12. Engineering and agencies on twenty-three roads, 2,118 $\frac{1}{2}$  miles, have cost \$3,395,962 56. The total expen-

diture for construction and equipment of 2,340 $\frac{3}{4}$  miles has been \$115,537,193 73. This shows a cost of \$49,359 05 per mile of completed and equipped railroads in New York.

The cost per mile of single track has been as follows: the grading, masonry, and bridging on 19 roads, 2,340 $\frac{1}{4}$  miles, \$9,676 37; superstructure on 21 roads, 2,833 $\frac{1}{2}$  miles, \$9,469 48; the total average expenditure for construction and equipment on 25 roads, 3,142 $\frac{3}{4}$  miles of track was \$36,769 45.

New York is, in many respects, an expensive state to build railroads in. Lying at the northern extremity of the Allegheny system, its surface is necessarily broken, and its water-sheds cross each other in various directions. The grading and bridging, therefore, are large items of expenditure in the cost of all these roads, though in some much greater than in others. The lowest cost of graduation and masonry on twenty-four roads reported, is the Rennselaer and Saratoga, \$4,358 21 per mile, and the highest reported cost is the New York and New Haven \$69,969 34 per mile. The average of all is \$12,778 49; of its two great roads, the Central cost \$12,269 05, and the Erie \$29,191 44.

In our next we will give some details of the cost of operating and maintaining the roads.

It is much to be regretted that regular reports of the character of those rendered on many of these roads are not required by law in every state in the Union. The State Engineer of New York, in his remarks at the preface of his report, in mentioning the fact that some of the roads had not complied with the requirements of the law in furnishing their reports, states that among those which furnished no reports were two upon which stupendous frauds were discovered. Had these roads been compelled to render a strict account and had some public officer been authorized to investigate their accuracy, it is a matter of doubt whether frauds could have been carried to the extent they were, or even that they would have been attempted at all. We repeat it, it is for the interest of the stockholders and the officers of the road, that a strict and faithful report should be furnished of every road operating or constructing, at regular and stated periods, and we trust that such reports will be made compulsory by the authority of the law.

### RAILROAD COMPETITION.

We observe of late a beginning of a competition between two important lines of railroad in New York, the New York and Erie and the New York Central railroads. These two roads, from their position, must do a great portion of the freight and passenger business between the east and west, certainly of the lake region and eastern and middle states.—Standing then, as the two great links between



these vast and productive regions, it is not to be wondered at that each should desire to give all possible accommodations to the stream of business, and so far as this is done consistently with the principles of prudence, no blame can be attached to either. But the difficulty is, that in competition all principles of prudence are forgotten, and individuals as well as companies are often hurried into difficulties from which it is impossible to extract themselves. This was foreseen by the directors of these roads, and at a convention of the managers of both companies, held in Buffalo in July 1853, a basis of charges was agreed upon. One of the features of this arrangement was, that steamboat fare as a link in through travel, might be less than fare by continuous railroad. Now it so happens that the Central road has greater advantages for steamboat travel than the Erie, and the passenger who takes advantage of all the steamboat travel he can obtain, could go from New York to Buffalo cheaper by the Central than he could by the Erie. This is the point of difficulty and it is likely to result in serious competition between the two. This is a matter to be regretted, as it will be productive of benefit to neither. But let us see for a moment what kind of a race they enter.

First, as to pecuniary position, the Erie and Central stand in a vastly different position.—The Central railroad with ample means and comparatively little debt, is not compelled by stern necessity to husband every dollar of its earnings to keep the sheriff's hammer from its property. The Erie, on the contrary, loaded down with a debt which cramps its energies can ill afford to run a race in which both are sure to lose.

Second, as to legitimate business irrespective of that in competition. The Central commencing at the head of navigation on the Hudson and terminating at the head of navigation on Lake Erie, passing through the central and most productive portion of the state, a portion already developed for a long period by canal and railroad facilities, can earn fair dividends irrespective of the business for which they contend. But to the Erie, with a meagre support from local business, her legitimate share of western business is of vital importance. The race is therefore unequal and can have but one result.

After running long enough at reduced rates to satisfy themselves that it *does not pay*, the competition will be abandoned, and the credit of the poorest will suffer the most. The truth is, that competing roads too often forget the great principle, that legitimate business cannot be turned permanently from its course by any transient advantages which must eventually be withdrawn.

☞ The recent valuation of property in San Francisco, Cal., is \$52,000,000.

#### SALE OF THE PUBLIC WORKS OF PENNSYLVANIA.

The public works of Pennsylvania, including the Philadelphia and Columbia Railroad, the Canal from Columbia to the Junction at Duncan's Island, the Juniata Canal from thence to Hollidaysburg, the Allegheny Portage Railroad, including the new line to avoid the inclined planes, and the Canal from Johnstown to Pittsburg, with all the property belonging to these works, are to be sold. Our readers will find an outline of the bill of the Legislature authorising the sale in the issue of the Record for June 7th. We learn from the eastern papers that the sale is to take place July 24, at the Merchant's Exchange in Philadelphia.

It is quite evident that it is the interest of the Pennsylvania Railroad to purchase these works, if that Company can procure the means. But we think it likely that they may have competitors. New York, with her canals and railroads, has already great advantages over the Southern cities so far as the business of the Lake Valley is concerned. It is mainly this that has contributed to make her what she is. With unequalled facilities for the outlet of this vast trade, she is and will continue to be the metropolis of the continent. But New York is too intelligent to believe that she can rest here. She has looked long and wistfully at the Valley of the Ohio and Mississippi with its rapid development, and has freely lent her aid to reach it at various points. But the difficulty is that all her present means of reaching the great inland basin are too long. She needs and must have a shorter road here, or Philadelphia and Baltimore will claim and receive the great bulk of the trade. Such a means is now offered by the purchase of the public works of Pennsylvania and such an opportunity may never be presented again. We shall look with interest at the bidding on the 24th.

BRIDGE AT VINCENNES.—The bridge at Vincennes, on the Ohio and Mississippi Railroad, was crossed for the first time on Monday, June 25, by the locomotive Samuel Gaty, and stood the test well. It has been in constant use since the opening of the Western Division of the road on July 3.

CITY RAILROAD, CHARLESTON SOUTH CAROLINA.—There is a project on foot in Charleston South Carolina, to build a railroad from the Custom house, through Broad, Meeting, Calhoun, and King streets, to the entrance of Magnolia Cemetery. The estimated cost is \$35,000. It is proposed to raise this in shares of \$10 each. The Company will charge a fare of 6½ cents for the whole distance.—When this is opened it will probably be extended to the new Ashley Bridge. The company are about to issue a prospectus, embracing all the details of the proposition and will make a strong effort to carry it into completion.

## Railroads.

#### FORT WAYNE AND SOUTHERN RAILROAD.

A communication which appeared in the *New York Courier and Enquirer*, sometime last March, attacking the character of the securities offered by this road in the sale of its bonds, has induced the President of the Company, W. J. Holman, Esq., to prepare a schedule of the town lots and lands, mortgaged to secure the bonds. The following is the summing up of the whole:

Total appraised value of Town lots.....	\$ 89,075
“ “ “ “ Lands.....	214,055
	\$303,130

In reference to the bonds, the President says: “The Company have issued upon this mortgage two hundred and forty-thousand dollars of coupon Bonds, drawing seven per cent. interest, payable half yearly, on the 1st of June and December, which, with the principal, is payable at the office of the Ohio Life Insurance and Trust Company in the City of New York. The Bonds mature on the 1st day of June, 1859.

“The Bonds are taken at par by the Company for any of the lands mortgaged, at such cash prices as may be fixed by the Company from time to time; never, of course, below the rate at which they are mortgaged, or the issue of Bonds upon them, at the option of the holder.

“A failure on the part of the Company to pay principal or interest, when due, is just cause for a foreclosure of mortgage within sixty days from default, as per terms of deed of trust.

“The Trustee certifies upon the face of each Bond that it is one of the Bonds referred to in, and secured by, the deed of trust to him, of the Real Estate above described; that the appraisement of such real estate has been made under oath as to its fair cash value; and that he has in his possession (from the proper officers of the counties in which the lands are situated) certificates that the titles are good in said Railroad Company to the real estate described in said deed.

“Ninety-five thousand dollars of these Bonds were disposed of prior to the first day of June, the interest upon which was promptly met at the office of the Ohio Life Insurance and Trust Company.

“All the lands mortgaged lie within Counties through which the Road runs, and will be greatly enhanced in value by the construction of the Road; hence the determination of the Company not to part with them at present worth, although it is believed that on a forced sale they would bring more than the par value of the Bonds issued upon them, at any time.

“More than three-fourths of the grading and masonry of one hundred and seventeen



miles of the road is ready for the superstructure, and the work has been directed with a reference to having the grading prosecuted simultaneously with the track laying. Pending negotiations for the iron are with a view of making the most important connections within the coming twelve months."

The lower section of the Fort Wayne and Southern Railroad, from Vernon to Jefferson, with the portion of the Ohio and Mississippi Railroad from Vernon to Cincinnati, makes a very direct line from Cincinnati to Louisville, and must, therefore, command the travel between these two cities. This travel has been estimated at 500 a day both ways, when the roads are finished and the running time is estimated at four and a half hours. The company have wisely concentrated their energies on this portion of the line, and when completed, will certainly reap great advantage from it.

We learn also from an advertisement in one of the Louisville papers, that a meeting of the creditors of this road was held at Louisville, June 21, at which Abraham Hite, Esq., was elected President, and D. T. Thruston, Secretary. The Company was represented by Hon. W. H. English, who submitted proposals for the arrangement of the debts satisfactory to the creditors present.

#### CINCINNATI, HAMILTON & DAYTON R. R.

We published at the request of the President of this road the following communication to the stockholders. We should have published the article at length before, had it been addressed to us. But as it was addressed to one of our cotemporaries and also issued in circular form to the stockholders, we had hardly deemed it necessary. Our readers will find our own views by referring to their file of June 7th.

OFFICE CIN., HAM. & DAYTON R. R. Co.,  
Cincinnati, June 4, 1855. {

To the Stockholders of the Cin. Ham. & Dayton  
Railroad Co.

GENTLEMEN:—In a recent article, published as editorial in the Railroad Record of this city, statements are made in regard to the cost and management of this road which seem to call for notice. I therefore avail myself of the occasion of your adjourned meeting to bring the matter before you.

In the article referred to there are several gross misstatements of facts. The writer takes an estimate of R. M. Shoemaker, Civil Engineer, upon about one-third of the road, from Cincinnati to Hamilton, and for only part of the work on that division, and treats it as an estimate for the whole road from Cincinnati to Dayton. Upon this erroneous basis it is asserted that the work, estimated by Mr. Shoemaker, has actually cost more than three times the estimate!!

The following is the paragraph in Mr. Shoemaker's report of May 6, 1850:

"The estimated cost of construction and equipment of your road from Cincinnati to Hamilton, finished with single track and the needful turnouts, as made from the preliminary surveys in December last, is as follows:

For graduation and masonry.....\$286,136 58  
Superstructure and side tracks, including iron, spikes, etc.....204,400 00  
Equipping Road.....160,000 00  
Water Stations, etc.....20,000 00  
Engineering and contingencies.....30,776 83  
Total.....\$647,313 41

The above estimate does not include the cost of rights of way, depot grounds, nor permanent depot buildings."

It will be seen that if the estimates of Mr. Shoemaker had been extended to Dayton, it would have amounted, in the same ratio, to nearly \$2,000,000. The cost, as now shown, of the items included in the estimate of May, 1850, upon the whole sixty miles of road from Cincinnati to Dayton, is only \$2,064,776, showing conclusively that the estimate of Mr. Shoemaker was a fair and reasonable one; and that the result of the work, when completed, exceeds the estimate much less than upon any road in Ohio or elsewhere, of which we have any knowledge.

To show further the unfairness of the article referred to, it is there stated that the actual cost upon the whole road of the items included in Mr. Shoemaker's report, is about \$2,200,000, or more than three times the estimate!! This cost includes \$133,158 for right of way, which was expressly excluded in the estimate of Mr. Shoemaker.

The cost of the road has, however, in some particulars exceeded our expectations. It was found, during the progress of the work, that the Great Miami River was subject to greater freshets than formerly, rising in a short time full seventeen feet perpendicular, and overflowing wide the valley, making it necessary to raise our embankments on the low grounds, so as to be above all freshets. It was also found to be necessary to build our bridges with much more water way than was usual with turnpike bridges over the same water courses, in consequence of our heavy embankments operating as barriers to the water.

The extent of bridging on the entire line being more than a mile, most of the heavy masonry for which is already prepared for a second track, makes this item in our construction account an unusually large one.

In establishing the grades our Engineer did not adopt the usual custom of following the undulating surface, rising and falling with every slight change, but made the grade long and easy. As for instance, starting on the level land beyond Cumminsville, there is one continual ascent of eight miles, until the summit level is reached between the waters of Mill Creek and the great Miami River. This, all who are acquainted with railroads, understand largely increases cost, but makes a superior road.

The C. H. & D. R. Road was actively commenced and completed in about fifteen months so as to be opened for travel. The embankments of roads built in the usual time, generally shrink and waste twenty per cent. The shrinkage and waste of your road, however, owing to its being built in a very short time, and during an exceedingly dry year, must have been thirty-three per cent. This shrinkage was made up in the course of the first two years, by our gravel trains working under the disadvantage of the regular passenger and freight trains having the occupancy of the track. The deficiency has not only been made good, with the best of gravel from our pits, but the embankments have been made

much wider than roads are usually constructed. This has been a costly operation; but the result is highly satisfactory, inasmuch as we may challenge the country for a road equaling it in its general characteristics, and in its value as a working machine. The embankments being constructed so much with gravel, are not rough in the spring of the year from the action of the winter's frost—are comparatively free from dust, and the road can be cheaply maintained in perfect order. It is also remarkably favorable for machinery doing good service, with but little cost, as a reference to our reports, for repairs, compared with other roads, will show. Had we, following the undulations of the ground, constructed a road, with a maximum grade of forty feet to the mile, instead of twenty, the construction account would have been much less, but the expense of operating and maintaining the road, in all time to come, would have been greatly increased.

The annual report of 1853 showed a total of track laid, including all side tracks, of seventy-five miles. It has since been increased fifteen miles, for second track, making in all ninety miles of iron now laid.

The double track work, for three miles north of Hamilton to the junction of the Eaton road, including a double track bridge over the Great Miami river of 720 feet, and the stone bridge over Old river, is of a very heavy character, costing not much less than three hundred thousand dollars. A very large expenditure was incurred at the Pinnacles, near Carrollton, by which two crossings of the Great Miami river were avoided, by making a heavy embankment and excavating for a long distance a new channel for the river. A large expense was also incurred in the heavy work in crossing the river into Dayton on a long and heavy double track embankment and a substantial double track bridge. There has also been a large amount of grading for a second track, on which the superstructure is not yet laid.

The Company have numerous stations on its road, at all of which, with two or three exceptions, freight and passenger houses have been erected. In this respect our road is better and earlier supplied than most other roads in this section of country. The outlay for freight house, circular engine house, car house, and for machine shops in Cincinnati has been very heavy.

In equipment we have more than a usual supply—and it is of the very best quality. There is more than is needed for the present wants of our own road, and we use a portion on connecting roads, for which an equivalent is received.

The value of Real Estate held by the Company, as estimated by the Assessors for taxation, exceeds five hundred thousand dollars, the greater portion of which is within and near Cincinnati, and immediately connected with the road. When the business of the road shall have been so far developed as to enable us to judge how much of the real estate will be requisite for the convenient transaction of business, the remainder will be sold, doubtless at a large profit.

The great freshet of December, 1852, did extensive damage to our bridges. In order to guard against a similar occurrence, about one hundred thousand dollars have been expended in extending and protecting them, so that we confidently expect no further interruption or cost in this respect.

The entire fencing of the road has been



completed at a heavy expense, and we are no longer liable to much injury from cattle.

The right of way and land damage will be in all about one hundred and fifty thousand dollars. When it is considered that the Road runs more than a mile within the City of Cincinnati, avoiding for most of the distance the streets—that it is constructed entirely through the cities of Hamilton and Dayton, and that in approaching Cincinnati for several miles it passes through land valued from \$500 to \$5000 per acre, the cost is not more than should have been expected. The same privileges could not be obtained again for less than treble the money.

In passing through a valley like that of the Great Miami, with numerous water courses to cross, and with a dense population, requiring a large number of cattle passes and road crossings, the masonry account is necessarily very large, amounting, as will be seen from our last annual report, to upwards of three hundred thousand dollars.

The general estimate for Western roads has been from sixteen to twenty thousand dollars per mile. Experience, however, has shown that those built for that sum have scarcely been half finished when put into operation. They are generally located on upland where but few water courses are to be crossed, and where the face of the country is such that nearly all that is done in the way of grading is to dig ditches alongside of the track, laying down the superstructure with as many undulations in its grade as the surface of the ground presents, and with but little or no ballast. In general the stone work is postponed, and wooden structures substituted. Such a thing as fencing is but seldom seen.

These details are stated for the purpose of showing that the large expenditures upon the road have been necessary, and were required for the permanent interest of the stockholders.—We believe that it would not be practicable to build another road of the same character, between Cincinnati and Dayton for a less sum. No one will question that a road was and is required in the richest valley of the West, one possessing such a dense population, such fertility of soil, and such manufacturing facilities; and no one, it appears to us, can question the ultimate value of the investment.

It may be by some supposed that it would have been more judicious to have followed the general custom of partially building and completing the road, until its business was fully developed, thereby saving, for a time, the interest on a large amount of money.—But the Directors have thought otherwise, and have encountered, at the outset, the heavy expenditure of building a complete road. This, they were induced the more readily to do, from the fair prospect there was that our numerous connecting roads would before this have been extended hundreds of miles beyond where we now find them. But embarrassments came upon the country, and we have been disappointed in their early completion.

We have faith, however, that in a short period we shall see our earliest and fullest anticipations realized. When the Dayton and Michigan road shall be extended to Toledo and Detroit—the Cincinnati and Union to Fort Wayne—the Cincinnati, Logansport and Chicago from Newcastle to Logansport—and the Junction road from Hamilton to Indianapolis, on all of which the work is slowly progressing—the additional business which will be thrown upon our road, with that received

from the Mad River and Lake Erie road, and with our large and increasing local business, will be greater than that of any railroad leading into Cincinnati.

In the meantime our natural position for an Eastern business, by way of the Lake, Lake shore roads, and by Pittsburgh, is equal to the best; and we must not be denied the right of looking in that direction for a portion of our business. The public generally have a deep interest in maintaining two routes for Eastern travel from Cincinnati. It is admitted by those who understand the merits of the two, that the line, via Dayton, is equal, if not superior, to the line via Columbus.—Neither should be suffered to become a monopoly, but both should be maintained for the purpose of promoting a healthy competition.

The earnings of this road, since its opening, will compare favorably with the best roads of the country. The third year its receipts per mile were within a fraction of being equal to those of the Little Miami road in its tenth year, viz:

Little Miami, 1854, 84 miles, \$2,109 per mile.	\$681,211 95
C. H. & D., 1854, 60 " " \$8,160 " "	\$483,620 48

Until the business of your road is more fully developed, it will be necessary to use the greatest industry, and maintain the strictest economy, to make fair dividends for the stockholders.

In a few years, the profits of the road will be placed beyond contingency, and the stockholders will receive a full return for the large expenditure which has been made, it may be to some extent, somewhat in advance. Of one thing we can speak with confidence, that less money has been wasted on this road than upon any other with which we are acquainted.

Respectfully submitted,

S. S. L'HOMMEDIU, Pres't.

#### PINE BLUFF AND NAPOLEON R. R. GOING AHEAD!

We learn from Maj. W. G. Crawley, who arrived at home on last Thursday, that Capt. Tilghman and Dr. Lee, have let out to good responsible contractors, the clearing and grading of the first fifty miles of the road, and that the gentlemen taking the contracts receive pay in stock to the amount of their work. Capt. T. has now a proposition to take the other seven and a half miles, which completes the whole line from Pine Bluffs to Napoleon.

The persons taking the contracts are Judge W. R. Anderson, Calvin Stroud, Mrs. Sexton, J. C. Corrol, Maj. McNeill, G. B. Watson, Col. Jas. Branch, Col. F. Holmes, Col. N. B. Burrow, and Thomas Martin, all of Desha; and Col. Jo. Branch, Gen. S. Mitchell, Col. Jas. Smith, A. Douglass, R. H. Duglass, Thomas Douglass, W. H. Davidson, all of Arkansas county.

These gentlemen are all known to be reliable and fully able to discharge their contracts. In this respect there is none that stand higher.

This is glorious news and will be hailed by every one, who feels the least interest in the Arkansas valley, as a brilliant event in the history of this road. The building of this road from Pine Bluff to Napoleon, is now a "fixed fact."

The clearing and grading of the road thus taken in stock, the \$295,000 subscribed in money, and the donation of 100 acres of land at Napoleon, and 67½ acres at this place, gives the stock of this company a premium value over the stock of any other road in this

State, with all their boasted abilities and magnificent donations.

Every land-holder along the entire line of the road, has granted the right of way. The road is on an air line, with a grade of one foot and one-tenth to the mile.

We'll go a wager that the cars will run the first sixty miles of road in the State between Pine Bluff and Napoleon, and that they will go faster and carry more freight than any of the other Arkansas roads.

#### VIRGINIA AND TENNESSEE RAILROAD.

We learn that Mr. McDaniel, the President, has succeeded in selling upon favorable terms in Washington and New York, \$300,000 of the bonds of this Company. There has been some thirty thousand dollars worth purchased by our own citizens lately. One of our largest capitalists accompanied the Richmond Board of trade up to Wytheville, and was so well pleased with the appearance of the country and the prospects of the road as to invest ten thousand dollars in these bonds upon his return. The road is now nearly completed, and if successful in selling a million of its bonds, will be enabled to pay off the floating debt and finish putting down the rails to the State line at an early day. The track is, we understand, already laid down some six or seven miles beyond Wytheville, leaving only some sixty miles to be completed. The delay which has occurred will enable the East Tennessee road to meet them at the State line. This connection, it is anticipated, will immediately raise the receipts of the road to some fifty thousand dollars per month. If, however, the monthly revenue after paying expenses did not amount to more than fifteen thousand dollars it could pay the interest upon its debts and lay by a sinking fund. We regard the investment as a good one. The connection between this and the East Tennessee road will be made in less than eighteen months.—Lynchburg Rep.

#### THE RAILROAD WORKS AT TOLEDO.

The operations of the Southern road at Toledo, are on a more extensive scale than any other railroad enterprise of a local character in the Western Country—we might perhaps say in any part of the country; for, if they do not involve the expense of the Hoosick Tunnel, or have not occasioned as much talk, they will be accomplished a long time first.

Commencing in the river, nearly opposite the mouth of Swan Creek, and near where the old Steamer Ohio, so many years lay, the earth is filled in some fifteen rods in width, extending up the river about a mile, so the vessels can come up on either side. Upon this "Middle Ground," a Warehouse is building, to be three thousand feet in length; and wide enough for three tracks, with necessary platforms for freight. The walls are 20 feet high, of brick, with posts inserted in the walls, and upon which the immense tin covered roof is partly to rest. A portion of the building is already up, and the whole is expected to be completed by Autumn. The Passenger Depot is to be at the lower end of the middle ground, just opposite the foot of Summit Street, and reached by a draw bridge.

Some distance up the river, the stream is cut up and intersected by railroad tracks like the waters around Boston—including the bridge and the tracks of seven different roads entering at the same point.

The work between the river and the north side of the Wabash Canal is hardly less than that in the river. For about a mile, the cut is



I should think, 40 feet deep—much of it is a bed of tough blue clay. This is dug by what are called the "Iron Paddies," operated by steam, like dredging machines. Two scoops full load the car, occupying about two minutes. The immense quantity of earth taken from this cut is all required to fill the Middle Ground.

The road passes under the Canal which is supported by two lofty arches for two tracks. This aqueduct is a magnificent structure.—The arches are some 30 feet above the road bed, and over all the *raging Canawh flows peacefully on!* Above the Canal the Air-Line road diverges, and the other track enters the old line of the road about four miles this side the city.

The aqueduct, the deep cut, and the building 3000 feet long, will be attractions which of themselves, will draw many a traveler over this leading thoroughfare for the North West.—*Adrian Expósito.*

#### THE SCHUYLER OVER-ISSUE OF STOCKS.

At the General term of the New York Supreme Court, on Saturday, June 23d, was delivered the opinion of a majority of the Justices, affirming the decision of the lower Court and settling the question of the liability of the New York and New Haven Railway Company for over-issued Stock. The case was that of the Mechanic's Bank of New York *vs.* the New York and New Haven Railroad Company, and the action was originally brought to recover the market value of a certain amount (85 shares) of the stock of this Company, issued by Robert Schuyler, and received by the Mechanic's Bank in good faith, as a hypothecation from Alexander Kyle on a loan of \$12,000. The case was heard in the special term by Judge Bosworth, and a decision rendered in favor of the plaintiffs for 94 per cent., being the market value of the stock at the time of its passing into their hands. From this decision an appeal was taken to the general term; and the full Court gave judgment on Saturday, affirming it.—The defendants refused to permit these shares to be transferred on their books, on the ground that the stock was spurious, and issued by Robert Schuyler, their transfer agent, without their authority.

Judge Bosworth, before whom the cause was tried at the special term, decided that the defendants were liable to the plaintiffs for the market value of the shares, and the cause was then carried up to the general term of the Court, where it was most elaborately argued for several days before the full bench.—Messrs. Van Winkle and Daniel Lord for the plaintiffs, contended that the Company were liable, because Schuyler was their general agent when he issued the fraudulent stock, and was acting in the scope of his authority and the course of his employment. In reply Messrs. Noyes and Wood denied that Schuyler was then their agent, but only such when acting in reference to, and in connection with, a transfer by an owner of stock, of some of the shares, in an ordinary course of business, and in the usual mode. The substance of the decision is embodied in the following proposition, with which Judge Bosworth closed an elaborate opinion, pronounced in Court.

First, That in issuing the certificate, Schuyler was acting within the scope of his powers as transfer agent, and the issuing of it was, in judgment of law, the act of the Corporation.

Second, That by intrusting to him that department of business, and holding him out to the world as the officer by whom the Company would transact it, it represented his official acts to be entitled to credit, and became responsible for his fidelity in that employment.

Third, That any person to whom certificates of stock, issued by such officer in the usual form, are authenticated by him in the usual manner, and offered for sale, is, through them, assured by the Company, that the facts are as they represent them to be, and is as much authorized to purchase relying on the truth of that representation as a merchant is to sell upon the representation of a third person that the vender is worthy of credit.

Fourth, That a purchaser in good faith, for value, and in the ordinary course of business, of such a certificate, although it proves to have been fraudulently issued, is entitled to recover his damage of the company, if they refuse to permit of a transfer of the stock, or to reimburse to the purchaser any part of his advance, and that he cannot be charged with having been negligent, or with a want of due caution, or having trusted to the certificate of the proper officer, without further inquiry, when there was nothing in the circumstances under which it was offered to him, or relating to the person who offered it, or to the amount of the stock so offered, justly calculated to excite the suspicion of a prudent and cautious man, that the officer of the company had departed from his duty in issuing, or that the holder had been guilty of any improper practice in obtaining it.

In the above decision, Four out of the Five Justices of the Supreme Court, concurred, Judge Campbell alone dissenting. We believe the decision to be eminently just, and hope that it may stand all the legal hammering that can be brought upon it. We understand that there are some three hundred parties, who stand legally in the same attitude towards the company, and probably under this decision the company will be led to make some arrangement to compromise the claims of the different parties. The case, so far as the Shareholders is concerned, is a hard one, but they were instrumental, solely, in placing Mr. Schuyler, in the position which alone enabled him to issue these fraudulent certificates, and therefore they alone should bear the blame and the loss. The capital stock of the Company is \$3,000,000, and this decision will probably increase it some \$1,500,000, making in all \$4,500,000. This will be a terrible blow to the thousands of individuals in New York and the Eastern States, who had invested much, or all, of their means in that concern.

Many of the shareholders are widows and orphans, who thus see half their means of existence swept away by this flood of fraud. It is not we regret to say, on the directors of the company that this blow falls, but upon the innocent shareholders. If these latter, however, had watched over their interests with more assiduity, this misfortune would not have found them so defenseless. We shall publish full abstracts of the opinions of the different Justices in our next paper, so that our readers may have the full legal reasoning whereby this result is reached, and so radical a change is made in the fortunes of one of our principal railway enterprises. The result is just as we have stated it would be, quite a number of times, and though we are sorry for the losers we believe the result a righteous one.—*American Railway Times.*

## Miscellaneous and Mechanical.

### CHANGES IN MINERAL VEINS—EAST TENNESSEE COPPER MINES.

The decomposition of metalliferous lodes in their superficial portions is a matter often noticed and generally expected by the miner, and there is nothing anomalous in this respect in the East Tennessee Copper region. The commonly observed facts are these:—the predominating metalliferous ores which are wrought in mines, especially of silver, copper and lead, are sulphurets, sulphur being the usual mineraliser, although arsenic and antimony are not unfrequently found in connection with sulphur in combination with these metals. These ores are sometimes scattered irregularly through the gangue in fine particles, and sometimes arranged in nearly parallel bonds or plates, which are separated from each other by belts of barren veinstone. This is the normal condition of the veins at a considerable depth and some of them retain their original appearance and remain chemically and mechanically unchanged up to the very surface. In most metalliferous lodes, however, it is found that the ores have undergone decomposition down to a certain depth, which rarely exceeds three hundred feet, and generally falls between fifty and 100 feet. This decomposition is, perhaps, more common and more strongly marked in cupriferous lodes than in those of the other metals, although some argentiferous veins in South America exhibit it on a grand scale. The predominating ores of copper are the variegated ores and copper pyrites, both of which are combinations of sulphur with copper and iron and their presence in the veins beneath is indicated on the surface by an outcrop of what the Cornish miners call *gossan*, a term which has been generally adopted wherever the English language is spoken. This is a hydrated peroxyd of iron, usually much mixed with silicious and earthy matter and having a somewhat open and porous structure. Associated with this ferruginous mass the oxydised combinations of copper are often found occurring, at no great distance from the surface; among these, the carbonate and silicates are the most common, the phosphate and arseniate less so. The oxyds themselves and the native metal are among the products of decomposition. Sometimes these oxydised ores are very abundant in the upper part of a cupriferous lode, and are wrought with large profits, owing to their richness and the softness of the ground and the consequent facility in mining. In other localities, nearly all the copper has disappeared from the upper portion of the vein and only traces of these ores are found with the gossan. On sinking down into such decomposed veins a gradual change is found to take place in their character: the oxydised ores are replaced by the sulphurets; the ferruginous aspect of the lode disappears; the gangue becomes more solid, and the walls are better defined.

These changes in the upper portion of the sulphuret-bearing lodes are usually conceived to be the result of the action of air and water introduced from the surface and penetrating gradually downwards. Through their joint influence the sulphuret of copper and iron is gradually decomposed and while the latter metal remains behind in the form of an impure hydrous oxyd, or gossan, the copper is also converted into an oxyd and may remain



in that state, or combine with the sulphuric acid furnished by the oxydation of the sulphur of the original ore, or with any other acid which may chance to be present, thus giving rise to the numerous beautiful ores, most of which contain water, which are so common in the higher portion of cupriferous veins. The nature of the combinations resulting from any such decomposition and their relative quantity must, of course, depend on the quantity and quality of the ore originally in the lode, the proportion and kind of vein-stone and probably still more on chemical and perhaps electric agencies, the precise mode of action of which is as yet but imperfectly understood.

In the Polk County mines, these changes are displayed on a grand scale. The metalliferous veins which belong to the segregated class, are very wide and the decomposition has been very complete, so that the outcrop of gossan is very marked and in some places occupies a width of one hundred feet on the surface, consisting of large angular blocks of ferruginous rock piled up along the line of the vein. On sinking into this mass of ferruginous matter it is found to be tolerably soft, but at the same time so compact that excavations in it need but little timbering. If the shaft is commenced on the summit of the hill, it will be necessary to penetrate a hundred feet, perhaps, before any change in the nature of the vein is perceived. In the valleys the distance required for this purpose is much less. The depth at which the gossan terminates is nearly coincident with the water-level, or the point where, in sinking, water is found in considerable quantity. Here a layer or bed of copper ore is met with of very irregular dimensions, in some places occupying large bunches or pockets of many cubic yards in content, and in others forming only a thin stratum. This deposit of ore is quite as variable in composition as it is in dimensions. Its color is usually quite dark, and when rich in copper, almost black. It is evidently a mechanical mixture of black oxyd of copper with sulphurets of iron and copper, sulphate of copper, oxyd of iron, silicious matter, and some manganese. The per-centage yield of copper is usually low; but the purest portions contain from twenty to thirty per cent. of metal. This deposit of black ore is the object of exploration in the mines, and the only source, thus far, from which copper has been obtained in any quantity worthy of notice.

Beneath the black ore is the undecomposed portion of the vein, showing, in two or three points, where I was able to see it at the time of my visit (1853), a hard quartzose gangue with particles of copper pyrites scattered through it, and associated with a considerably larger quantity of iron pyrites. There seems no reason to suppose that the ore which originally existed in the upper part of the vein, from whose decomposition the black ore was derived, was any different in nature from that found below, although there may have been bunches of it considerably richer in copper. The deposit of black ore is insignificant in dimensions, compared with the mass of gossan which overlies it, and when we consider that a large portion of the copper which was once disseminated through perhaps a hundred feet of overlying vein-stone is now concentrated into the thickness of perhaps two or three feet, on an average, it will be seen that it is not necessary to suppose that the whole of that portion of the vein which is above the bed of black ore, "once consisted of yellow

sulphuret of copper." Certainly there is no reason to believe that the black ore is a sulphuret of copper altered by heat. Apart from the consideration that it is not such a product, or mixture of products, as would be produced by any igneous action on copper pyrites, we can conceive of no way in which the effect of increased temperature could be limited to the upper portion of the vein, so that that only should undergo decomposition. That the changes in question are exclusively the result of a humid process, can as it seems to me, be hardly doubted. The concentration of the black ore in one stratum seems to have been due to the percolation of the surface water which was constantly carrying it downwards to the point where it was stopped by the solid portion of the vein.

That the subject of the decomposition of veins is one which is thoroughly understood should by no means be inferred from the preceding remarks: there is, on the contrary, much in these phenomena which has not, as yet, been satisfactorily explained. We know, indeed, that the changes of the sulphurets with oxydised combinations do occur, for we see them taking place under our own eyes, through the joint action of air and water holding carbonic acid in solution; but why in some mining districts the metalliferous veins should be thus effected, while in others no change whatever has occurred, is less easily understood. Burat has called attention to this circumstance, and cited some instances in which the sulphurets remain entirely unoxysidised up to the very surface. Thus the cupriferous veins of Mouzaia, in Algiers, project out from the surface like walls, being more permanent than the adjacent rock, and the first blow of the hammer reveals the pyritiferous ore in its natural state. The same thing may be observed in this country. Throughout the Northern states the pyritiferous lodes remain apparently in their unaltered condition; or, at most, have undergone but little change and exhibit hardly any indications of gossan. The enclosing rocks are not at all softened or stained with ferruginous matter. As examples of this he would instance the great veins of Shelburne and Eaton, in New Hampshire; those of Hampshire county, in Massachusetts; and the St. Lawrence county mines in New York. In none of these has any marked change taken place near the surface. In one part of the Southampton (Mass.) lode, a few oxydised ores were found when the mine was first opened, but they were but small in quantity compared with the mass of the unaltered ore. This state of things is a great drawback on the opening of the N. England mines since the expense of sinking and driving in the hard granite and quartzose rocks is enormous. In North Carolina, South Carolina and Georgia, on the other hand, the gneiss and slates are often found over a great extent of territory completely decomposed and softened, so that they may be excavated with the pick and shovel, down to a depth of fifty or a hundred feet. I have known a shaft sunk in North Carolina in the rock to the depth of sixty feet in one week.

In the veins of that State, the principal, indeed, almost the only, one near the surface is an auriferous gossan resulting from the decomposition of iron pyrites, with which a little copper pyrites occurs intermixed. Of this latter ore, the quality in several instances seems to increase with the depth of the workings. If the vein-stone is wholly quartzose the extent of the decomposition is much

less than when it contains feldspathic or slaty portions. Thus in the McCulloch mine, in Guilford County, N. Carolina, there is a body of soft ferruginous ores containing a good amount of gold, which extends downwards more than one hundred feet and parallel and co-extensive with this auriferous mass, which may be mixed with a shovel, there is a heavy bed of quartz with iron and copper pyrites scattered throughout it, in which no traces of decomposition can be perceived.

With regard to the East Tennessee veins, the practical question of the most importance is: what kind of ore and how much of it is likely to be found in sinking into the undecomposed veins beneath the level of the black ore. This, we believe, can only be determined by actual trial. If in the cleaning out the deposit of ore, which lies upon the hard vein-stone beneath, there should be bunches of cupriferous ore found, the best of them should be opened by sinking on them, and there can be no satisfactory reason given, based either on analogy or on the appearances of the bodies themselves, why considerable quantities of the yellow ore of copper should not be found within a reasonable depth. Still it is not impossible, that, as these views do not exhibit the characteristics of true fissure veins, they may be found to have been richest near the surface and not to be capable of being worked with profit in the hard rock.—*Am. Jour. Science & Art.*

**THE ARCHED ROCK OF LAKE SUPERIOR.**—A correspondent of the Lake Superior Journal furnishes the following description:

The Arched Rock of Lake Superior is a cavern hollowed by the action of the water in the sand stone rock, resting on a bed of conglomerate. The opening faces the lake to the north, and presents an arch of singular regularity and great beauty, with abutments more or less perfect, on either side.—The arch does not spring immediately from the water, but stands upon a wall slightly battered from a vertical line. The interior presents a magnificent saloon. It is a powerful cavern for reverberations of sound, both from without and within.

Its immense proportions have not been fairly represented by travelers, and the miserable pigeon hole picture in Foster & Whitney's book conveys no conception of this wonderful recess. The cave is large enough to hold and hide completely a brig with all her sails set and topgallants flying. By measurement the width at the water line is 144 feet, its depth 210 feet. Its height appears to be equal to its width; but writers who ought to be reliable have made it somewhat less.

**MISSISSIPPI VALLEY RAILROAD NORTH.**—At a meeting of the Board of Directors of the Mississippi Valley Railroad North, held at Hannibal, on the 14th day of June, the following resolution was passed:

*Resolved,* That the President of the Board be and he is hereby authorized to appoint all such agents and Commissioners as he may deem sufficient for the interest of the company, to open books of subscription for stock in the State of Missouri and elsewhere and in his discretion to pledge the company for the payment of the services of a competent agent or agents to canvass the various counties and cities for stock, and to agree on the price of such services. J. H. BRITTON, Pres't.

EDWIN DRAPER, Sec'y.



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHARES.	OFF'D.	ASK'D.
Alabama and Tennessee.	1st mortgage, convertible in 1872.	7 1872					
Baltimore and Ohio.	Transferable. Taxed.	6 1883					
Do do	Coupons. Not Taxed.	6 1875					
Do do	" "	6 1880					
Do do	" "	7 1860					
Do do	" "	6 1885					
Bellefontaine and Indiana.	1st mortgage, convertible.	6 1866	98		50	45	
Buffalo and Penn. State Line.	1st mortgage, not convertible.	6 1866					
Chicago and Rock Island.	1st mortgage, convertible.	7 1870	98	99			96 1/2 100
Chicago and Mississippi.	1st " " "	7 1862					
Do do	2d " " "	7 1874	65				
Chicago and Aurora.	1st " " "	7 1866					
Cincinnati, Newcastle and Mich.	Real Estate.	7 1859					
Cleveland, Columbus, and Cincinnati.	1st mortgage, convertible.	7 1859			100	109 1/2	110
Do do do	No mortgage, convertible.	7 1855					
Cleveland and Mahoning.	1st mortgage.	7 1861			100		
Cleveland, Painesville, and Ashtabula.	2d " not convertible.	7 1861					
Do do do	1st " convertible.	7 1860				63	64
Cleveland and Pittsburgh.	1st " 2d sec. convertible.	7 1873					
Do do do	1st mort. not conv. '73.	7 1863	93	94	50	95	96
Cleveland and Toledo.	1st mortgage " till 1855.	7 1867				77	78
Cleveland, Zanesville, and Cincinnati.	2d mortgage.	7 1860	85 1/2	88			
Cincinnati, Hamilton and Dayton.	1st mortgage, real estate, conv.	10 5 & 10 y's	27	30			
Do do do	" "	8	44 1/2			15	15
Cincinnati, New Castle and Michigan.	2d " "	7	70	71		40	45
Cincinnati Western.	Real Estate.	8 1859	40		10 1/2	15	
Cincinnati, Wilmington and Zanesville.	1st mortgage, convertible.	7 1862	75	76			
Cincinnati, Indianapolis and Chicago.	2d " "	7	60	61			
Cincinnati and Chicago.	1st mortgage, convertible.	7 1859	80			90	100
Columbus, Piqua and Indiana.	2d " " till 1862.	7 1863	60	65		28	29
Columbus and Xenia.	Income.	10	70	75	50		
Covington and Lexington.	1st " " "	7 1867			50	20	22
Do do	1st " " "	7 1862				19 1/2	20
Dayton and Michigan.	1st " " "	7 1864	26	30			
Dayton and Western.	1st mortgage.	7 1862			25	50	51
Dayton, Xenia and Belpre.	1st mort. guaranty Mich. S. R. R.	7 1862					
Eaton and Hamilton.	1st mortgage.	7	80	81			
Erie and Kalamazoo.	" "					12 1/2	14
Evansville and Crawfordsville.	" "						
Fort Wayne and Southern.	" "						
Franklin and Warren.	" "						
Galena and Chicago Union.	Pledge of second section, convertible.	10 1853-6	92 1/2		100	109	110
Hillsboro and Cincinnati.	1st mort.	7	55	60	50	22 1/2	25
Illinois Central.	1st mortgage, not convertible.	6 1875	8 1/2	8 1/2	100	95	100
Do do	Freeland.	85	86				
Indiana Central.	1st mortgage, convertible.	7 1866	63 1/2	75	50	50	52
Do do	" "	10 1857	80	80	50	50	50
Indianapolis and Bellefontaine.	1st " " "	7 1860-1	75		25	50	50
Indianapolis and Cincinnati.	2d mortgage.	7	80	82	50	67 1/2	68
Indianapolis and Lafayette.	1st " not " "	7 1861			50	36	
Jeffersonville.	1st " " "	7 1867			50	11	15
Junction (Ohio).	Real Estate.	10	72	73		32 1/2	
Do Indiana.	" "	8 1864	77	82	100		
La Crosse and Milwaukee.	1st mortgage, not convertible.	6 1863			50	98	101
Little Miami.	" " " till 1855.	7 1861					
Do do	" " " " "	7 1858	9		100		
Louisville and Nashville.	1st mortgage, convertible.	7 1873					
Lyons, Iowa, Central.	1st mortgage, convertible till 1855.	7 1853-6	75		50	25	36
Mad River and Lake Erie.	2d " " "	7 1866	75				
Do do	Dividend.	7 1860	75				
Madison and Indianapolis.	1st mortgage, convertible after 1853.	6 1861			50		
Marietta and Cincinnati.	Domestic Bonds.	7 1868	57 1/2	60	50	32 1/2	34
Do do	2d " " "				50		
Hillsboro and Cincinnati.	1st " " "						
Maysville and Big Sandy.	1st mortgage, convertible.	6 1873			50		
Maysville and Lexington.	No mortgage, convertible.	8 1860	97			103	104
Memphis and Charleston.	" " " "	8 1855-6					
Michigan Central.	1st " " " "	8 1857-8					
Do do	1st " " " "	7 1860-90	100			103 1/2	105
Michigan Southern.	1st " " " "	8 1862					
Milwaukee and Mississippi.	1st mortgage 6s. 1884						
Mobile and Ohio.	mortgage on 1st section.	10 1858-62			50	15	20
Nashville and Chattanooga.	1st " on other section, convert.	8 1864-75					
New Albany and Salem.	1st " convertible.	6 1873					
New Castle and Richmond.	1st mortgage, not convertible.	7 1867	102 1/2	104			
New York Central.	2d " " "	7 1871	86 1/2	87	100	102	103
New York and Erie.	1st mortgage, convertible.	7 1883	95	95		52 1/2	54
Do do	1st mortgage, convertible.	8 1873					
Do do	1st " not convertible.	7 1861	79			97	98
Northern Cross, Ill.	1st " Goshen line.	7 1868	90	91			
Northern Indiana.	Construction Bonds.	7 1861	61			45	46
Do do	1st mortgage, convertible.	7 1860	53	55	50	18	20
Do do	2d " " "	7 1867					
Ohio Central.	1st " " "	7 1865			50		
Ohio and Mississippi.	Income. No mortgage, convertible.	7 1872					
Ohio and Indiana.	1st mortgage, convertible.	7 1866	101 1/2	105		101	101
Ohio and Pennsylvania.	" " " "	7 1873					
Do do	1st mortgage, convertible till 1860.	6 1880			50	43 1/2	40
Pacific, Mo.	1st " " "	7			25	30	31
Panama.	1st " " "	7 1872			50		
Parkersburg (or Northwestern Va.).	1st " " "	7 1860					
Pennsylvania.	2d " " "	10 1853-7					
Peru and Indianapolis.	1st " " "	7 1861	50	51		50	51
Rock River Valley Union.	1st " " "						
Sandusky and Mansfield.	1st " " "						
Do do	2d " " "						
Scioto and Hocking Valley.	1st " " "						
Southwestern, Tennessee.	1st mortgage, convertible.	7 1865					
Springfield and Columbus.	1st " " "	8 1862-72	93 1/2	94			
Stuebenville and Indiana.	2d " " "	8 1865	89	90			
Terre Haute and Alton.	1st " " "	6 1866					
Do do	1st " " "	7 1863	87	88	50		
Terre Haute and Richmond.	2d " " "						
Toledo, Norwalk and Cleveland.	Guar. of C. C. & C.	1883					
Do do do	" "						
Do do do	" "						



## STOCK TABLE.

CORRECTED WEEKLY.  
GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D
U. S. Loan.....	6	1856	105	105
Do .....	6	1862	112½	113
Do .....	6	1867	119½	120
Do .....	6	1868	119½	120
Do (Int. ceased July 1) 5		1853		102
Do Coupons.....		1862		118
Do .....	6	1867		118
Do .....		1853		101

## STATE.

Alabama.....	5			
California.....	7	1870	90	92
Arkansas.....	6			96
Georgia.....	6		90	95
Do .....	7			
Illinois Canal Bonds.....		1860		
Do do registered.....		1860		
Do do .....		1847		
Do do registered.....		1847		
Do do Internal Imp't. 6		1847	94	95
Do Interest do.....			64	64
Indiana.....	5		86½	87
Do .....	2½		53	54
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	97	
Do .....	5			
Louisiana.....	6		95	96
Michigan.....	6		97	98
Missouri.....	6		93½	95
New York.....	6	1860-61	109	110
North Carolina.....	6		98	100
Ohio.....	6	1856	101	
Do .....	6	1860	104½	105
Do .....	6	1870	111	112
Do .....	6	1875	112	113
Do .....	5	1855		
Pennsylvania.....	6			
Do .....	5	1870	87	88
Tennessee, long loan.....	6	1890	96½	98
Do Coupons.....	5		82	83
Virginia Coupons.....	6	1886	99	101

## CITY SECURITIES.

Albany.....	6	1871-81		99½
Allegheny.....	6	1875-79		80
Baltimore.....	6	1870-90	96½	97
Do .....	5	1865		
Boston Bonds.....	4½	1860		
Chicago.....	6	1873-7	92½	95
Cleveland.....	6	1879	103½	105
Cincinnati.....	6	1866-92	96	96½
Do .....	6	1897		
Do .....	5	1884		
Do W. W.....	6	1865		
Covington.....	6	1857	75	77
Jeffersonville.....	6	1890	70	
Louisville.....	6	1880	84	89
Memphis.....	6	1882		72½
New York.....	7	1857	100½	
Do .....	5	1858-00	95	99
Do .....	5	1870-5	97	100
Do .....	5	1890		
Philadelphia.....	6	1876-90	92	93
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1863		
Racine.....	7	1873	61½	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1873	75	76

## COUNTY BONDS.

Bourbon, Ky.....	6	1881		
Darke, O.....	7			
Fayette, O.....	7	1862		
Fayette, Ky.....	6	1881-3	75	75
Hancock Co.....	7		70	76
Mason, Ky.....	6	1881	69	66½
McCracken Co. Ky., endorsed by New Orleans and Ohio R. R.				
St. Louis.....	6	1866	80	85
Do .....	7	1871		

## BANKS.

OHIO.				
American Exchange Bank, N. Y.....			105½	
Ohio Life Insurance and Trust Co.....			102	103
Washington Insurance Co.....			84	85
City Insurance.....			70	
Cincinnati Insurance Co.....			84	
National Insurance.....			75	80

## KENTUCKY.

Bank of Kentucky and Branches.....				
Northern and Branches.....			100	
Southern and Branches.....				
Bank of Louisville.....			93	
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....			103	108
Commercial Bank of Kentucky.....				

## INDIANA.

State Bank and Branches.....				
TENNESSEE.				
State Bank and Branches.....				
Union.....				
Planters.....				

## LAND WARRANTS.

160 acre warrants.....	Off'd.	Ask'd.		
80 acre warrants.....		\$176		
40 acre warrants.....		88		
40 acre warrants.....		44		

## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	½	¾
Boston.....	Sight.....	½	¾
Philadelphia.....	Sight.....	½	¾
Baltimore.....	Sight.....	½	¾
New Orleans.....	Sight.....	½	¾
England.....	Sight.....	110	110½

## SPECIE.

	GOLD.	
California clean, \$ oz.....	\$17 60	@ \$17 65
Spanish Doubloons.....	16 75	@ 16 75
Patriot Doubloons.....	15 75	@ 15 80
Sovereigns.....	4 85	@ 4 87
Guineas.....	5 09	@ 5 00
American, new.....	1 00	@ 1 00
American, old.....	1 06	@ 1 06
Portuguese.....	1 00	@ 1 00½

## SILVER.

American Dollars.....	1 04	@ 1 04
American Halves.....	1 04	@ 1 04½
Spanish Dollars.....	1 12	@ 1 13
Spanish Quarters.....	1 00	@ 1 01
Mexican Dollars.....	1 05½	@ 1 06
Five Franc pieces.....	97½	@ 98

## CINCINNATI STOCK SALES.

AT THE STOCK BOARD,

## MERCHANTS' EXCHANGE,

## AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending July 11, 1855.

\$1,000 Cin., Wil. & Zanes. R. R. Co., 2d Mort. 7 per cent. Bonds.....	70
3,000 Cin. & Chic. R. R. Co., 8 per cent. Real Estate Bonds.....	40
8,000 Ohio & Miss. R. R. Co., 7 per cent. 2d Mort. Bonds.....	52
2,000 Ohio & Miss. R. R. Co., 7 per cent. 2d Mort. Bonds.....	53
3,000 Cov. & Lexington R. R. Co., 10 per cent. Income Bonds.....	70
5,000 Cin., Ham. & Day. R. R. Co., 7 per cent. 2d Mort. Bonds.....	85½ (& int.)
200 Indianapolis & Cin. R. R. Co., Div. Bonds.....	70
50 Cin., Ham. & Day. R. R. Co., Div. Scrip.....	90
30 Shs. Cov. & Lexing. R. R. Stock 28 (& int.)	
50 " Bellefontaine & Ind. " " 45	
25 " Little Miami " " 98	
100 " Indiana Central " " 50	
40 " Peru & Indianapolis " " 30	
20 " Central Ohio " " 45	
200 " Mad River & L. Erie " " 35	
15 " Ind. & Bellefontaine " " 50	
200 " Cin., Har. & Ind. " " 8 (& int.)	
150 " Cincinnati & Chicago " " 10½	
26 " Indianapolis & Cin. " " 67½	
50 " Eaton & Hamilton " " 50	
20 " Columbus & Xenia " " 90	
20 " N. Albany & Salem " " 15	
15 " Dayton & Western " " 19½	
10 " Cin., Ham. & Day. " " 77	
118 " Ohio & Mississippi " " 14½ (& int.)	
109 " " " " 15	
65 " " " " 17½	
139 " " " " 17	
32 " " " " 17½	
120 " " " " 18	
60 " Farmers Bank of Ky. Ex-div.....	103

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAITHE, STOCK BROKER, LON.

June 22d, 1855.

Cleveland and Pittsburgh, 1st Mort, 1850, — @ 80	
Erie, 3d Mortgage, 1883.....	87 " 88
" Sinking Fund.....	83 " 84
Grand Trunk (Canada) Debenture.....	94 " 96
Great Western " conv.....	110 " 115
" " non-conv.....	104 " 105
Illinois Central, 1st Mort., 7½.....	74 " 75
" " 6½.....	72 " 74
Marietta and Cincinnati, 1st Mort.....	77 " 82
Michigan Central, conv., 8½.....	93 " 94
N. York Central. No Mort. Not conv.....	81 " 83
" " conv.....	94 " 95
Ohio and Mississippi, 1st Mort.....	82 " 82
Ohio and Pennsylvania, Income 1872.....	84 " 86
Pennsylvania, 1st Mort., conv.....	90½ " 91½
" " Sterling, 3d Mort.....	91½ " 92½
Stuebenville and Ind., 2d Mort.....	88 " 90

## Monetary and Commercial.

The past week may, in most respects, be classed as a dull one. From the present date till September, mercantile transactions may be expected to be limited; and hence, the offerings of mercantile paper will be light. The demand for money during the week has not equalled the supply, and rates in consequence are a shade lower. The banks accommodate their customers at regular rates. Outside transactions have in a few instances been done at 8 per cent., the leading rates, however, are 10 to 12 per cent.

Eastern exchange remains as before ½ to ¾ premium, with a supply fully adequate to the demand.

In the Stock Market there is more animation manifested. Mercantile transactions being quiet, and the fairest anticipations for the crops being likely to be realized, confidence is improving, and there seems to be a strong feeling of speculation in stocks, particularly those which are low priced. Prices, as will be seen by our weekly quotations, are improving.

Our advices from the East note a most satisfactory state of things. Money continues abundant in supply, and is readily obtainable by good parties at 5 to 6 per cent. The supplies in the banks seem to be chiefly applied to speculation in stocks.

The Stock Market has received a new impulse from the general payment of the July dividends, and prices are improved. The disagreement between the Erie and the New York Central, seems rather to attract the attention of the "bulls," who expect a rise when the "war" is over, as it is very evident it must be before long. The demand from Europe for our stocks continues; but the prices are lower than the present market rates. The truth is European capitalists base their orders on the ruling rates a month ago, and in the meanwhile, under the favorable prospects of the year, stocks have materially advanced, and will probably for a time continue to advance.

Foreign Exchange is somewhat dull. The Bank of England having reduced the rate of interest to 3½ per cent., there is less inducement to ship specie. We quote sterling exchange at 109½ to 110.

## SALES AT THE NEW YORK STOCK BOARD, July 6.

\$1,000 Virginia 6's.....	99
1,000 N. Carolina 6's.....	98
5,000 Miss. 6's.....	97½
16,000 Louisiana 6's.....	95
20,000 Erie Bonds '83.....	95
1,000 " Bonds, '75.....	91½
14,000 Illinois Central Railroad Bonds.....	86½
12,000 " " F. Bonds.....	85
3,500 N. Y. Cent. R's.....	93½
3,000 Terre Haute and Alton, 1st mort.....	93½
2,000 " " " 2d ".....	89
5,000 Hudson River 3d Mort.....	78½
200 Shares Reading R. R.....	93½
200 " Hudson River.....	42½
50 " Mich. So. & Nor. Ind.....	103½
100 " Cleveland & Toledo.....	95
100 " Erie.....	52½
50 " N. H. & Hartford.....	125
210 " Cleveland & Pittsburgh.....	63
42 " Chicago & Rock Island.....	96½
250 " New York Central.....	103

## MILWAUKEE AND MISSISSIPPI RAILROAD.

The receipts for the first eighteen days of June this year, compare with the same the last year as follows:

	1855.	1854.
Passengers.....	\$14,645 64.....	\$12,028 98
Freight.....	30,011 67.....	20,450 00

Total.....\$44,657 20.....\$32,538 98

The receipts for the whole month of June last year, were but \$45,252 21, so that there will be an increase of over fifty per cent. this year, judging from the above figures.

## VIRGINIA AND TENNESSEE RAILROAD.

Receipts for the month of June, 1855:

From Freight.....	\$11,022 44
From Passengers, Mail, and Express Freight.....	8,959 96

Total.....\$19,982 40

Being over sixty per cent. more than the receipts in June, 1854.



## WHAT TAXES MEAN.

Mr. Bright, in one of his late speeches on the war, thus forcibly set forth the effect of heavy taxation on the life and happiness of the people:

"I ask honorable gentlemen to consider what it is that taxes mean. What is it but the clothing and furniture of many a poor family in Lancashire or Yorkshire; medical attendance to many a sick wife; the school pence of three or four little children; hopeless toil to the father of the family, penury through his life, a cheerless old age; and if I may quote the language of the poet of humble life, last of all 'the little bell tolled hastily for the pauper's funeral.'" [Hear, hear.] That is what taxes mean. The honorable member for Dorsetshire spoke in a manner that I thought rather flippant and hardly respectful, of some of us on this bench some nights ago. Let me tell him that the laborers of Dorsetshire and the weavers and spinners of Lancashire are toiling, and must toil, harder, longer, and with smaller remuneration, for every hundred pounds that you exact in taxes from the people beyond what is just and necessary for the just and judicious requirement of the exchequer of the country. I hope then, that I shall be permitted to treat the question on this ground. And recollect that *that which strikes down the children in the cottage attacks also the children in the palace.* [Hear, hear.] If you darken the homes and destroy the hopes of the population in the humble dwellings of the country, you also darken the hopes and the prospects of the off-spring of our Queen, in whom are bound up so much of the interest and so many of the hopes of the people of this country."

## MONTGOMERY AND FLORIDA RAILROAD.

The Montgomery Mail states that Col. Pollard, President of this road, was to leave for New York on Wednesday, in order to make financial arrangements for pushing on the work rapidly. "In a few days (says the Mail) six hundred hands will be drawn from sections below and placed on the first ten miles of the road, beginning at the southern verge of the city. It is the confident calculation of the President that the first twenty-five miles from Montgomery will be got ready for the iron by the first day of January next. He expects, too, while at the north, to be able to negotiate for 2,500 tons of rail, deliverable during the winter. If he succeed in that, we shall bring up a portion of the growing crop of cotton to Montgomery. The directory have received from the engineering department reports of the two surveys for the approach of the Florida road to the city, together with the estimates of cost. Upon a careful review of the whole subject, they have determined to recommend for the approval of the city, the River Route."

The Mail continues as follows:

Arrangements are making to push our Selma connection ahead. The means to build it are safe enough. It will cross the Alabama eight miles above Selma, and come in at the depot of the Florida road. This road will soon be started and pushed ahead with unparalleled rapidity.

As for the West Point road: Three hundred tons of heavy iron are now arriving at the depot. Eight hundred tons more will arrive this fall. We shall then have a good portion of the track, at this end, laid with T rail, at an early day; and the broken thin bars

will be replaced with sound ones. Within two years the whole road will be laid with heavy iron.

Let but our Mobile friends "come up to the scratch" next winter and do their part zealously and manfully, and the next *three years* will transform the two cities into places of vast importance in the trade of the southwest. By and by, too, we shall be able to *force* the building of that great Central North Alabama Road.

**RIGHTS OF BONDHOLDERS UNDER RAILROAD MORTGAGES TO PROPERTY ACQUIRED SUBSEQUENT TO THE EXECUTION OF THE MORTGAGES.**—A system of railroad law must necessarily grow up in this country, consequent upon the construction of so many lines as now cord its surface, and the extent of their transactions on credit during the course of their construction. The Springfield, Mt. Vernon, and Pittsburg road has been in Court in Ohio, and given rise there to some new questions of law. We find a memorandum of the case in the *N. Y. Post*. The bonds of the road had been issued under the usual railroad mortgage, containing a covenant that the Company should give to the Trustees a conveyance of any property acquired subsequently to the execution of their first mortgage. This conveyance, however, had never been actually given; the road became embarrassed, and the rolling stock and fixtures of the road amounted to some \$120,000, were levied on, to satisfy executions issued by sundry of the judgment creditors. A chattel mortgage had likewise been made on this same rolling stock, by the Board of Directors, to themselves, to secure advances made by them. A motion was thereupon made on behalf of the Bondholders, for an injunction restraining the Sheriff from making the sale under executions, and to compel a specific performance on the part of the Company, of the covenant for the conveyance of the subsequently-acquired property.

The points made by the plaintiffs were: That the covenant contained in the mortgage was notice to all subsequent incumbrances of the equitable interest of the Bondholders, and that the Company could do no act legally, or execute any valid instrument which would interfere with such equitable interest: that if a sale under execution should take place, the property would become so scattered that the Bondholders would have no remedy: that the Court should decree a specific performance of the covenant for further conveyance, as against any subsequent encumbrance, with notice of the equitable title of the Bondholders, and that the record of the mortgage was notice to everybody: that the property, even though acquired subsequently to the execution of the first mortgage, was actually purchased with the money paid on the bonds, and that thereby the company became the holders of the property in trust for the Bondholders, and had no possible rights or interest in it except as such Trustees, and, therefore, executions against the Company issued by subsequent judgment-creditors, could not hold the rolling stock or fixtures.

The Court held that sufficient grounds had been shown for the injunction, which was granted, and the sale stayed.—*Buffalo Dem.*,

The sum total of taxes in Ohio in 1854, was more than \$9,000,000. One third of this only, was levied by State authority. The balance in the State Treasury in November 15, 1854, was \$685,780.99.

**NOTICE TO CONTRACTORS.**—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Obion (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburgh and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

The letting at Nashville will be postponed until Saturday, August eleventh.

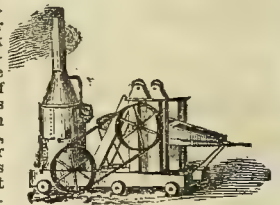
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[Railroad Journal please copy.]

BECKER & RUST,  
General Contractors.

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

## Railroad Printing.

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,  
Railroad Record Office, 167 Walnut st. Cin.

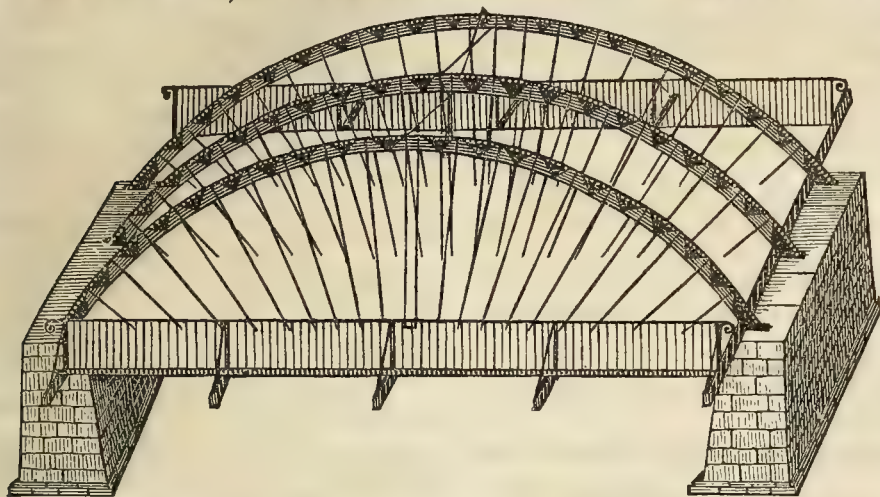
## GAS.

AUBIN'S PATENT.—We are agents for this new and improved furnace, and having had one in operation at our office for several months past, can confidently recommend it as being simple in its operation, occupying little room and furnishing a pure and beautiful burning gas. From the peculiar arrangement of the retort it is not liable to burn out, thus saving a great part of the expensive repairs of other furnaces. We are prepared to erect these furnaces at our own risk and warrant them to produce good gas.

T. WRIGHTSON & CO.,  
167 Walnut-st., Cin'tl.



# MOSELEY'S TUBULAR, WROUGHT IRON BRIDGE.



Office No. 57 West 3d Street, Reeder's Building, 2nd Floor, Cincinnati, Ohio.

These Bridges are made exclusively of the best Charcoal Wrought Iron. Their principal bearing or supporting parts, being plate iron triangular tubes. Including the wood work or floor, the Bridge will bear, when well made, sixty times its own weight of burden. We are prepared to construct and erect our Bridges in every part of the United States, the Canadas, &c., with single spans up to 2000 feet, (though with single spans the increase of cost is very great,) and the cost of ordinary span is not a large per cent over first class wooden Bridges. A Bridge of 50 feet and less of span, we can construct in three days' time, and when it is on the ground and ready for placing in position, we require but a few hours to remove the old one and place the new one complete in its stead. Or work is all warranted, and the warranties sustained by responsible obligations.

We want good special Partners in every State, the Canadas, &c., with whom we will contract on easy terms and furnish in all cases, the Bridges ready to go up.

**THOS. W. H. MOSELEY.**  
Principal Superintendant and Engineer.



## MATHEMATICAL INSTRUMENTS.

**T. F. RANDOLPH & BRO.,**  
N. W. Corner Fifth and Walnut Sts.  
No. 1, 2d STORY APOLLO BUILDING,  
CINCINNATI, O.,

MANUFACTURERS OF  
**Surveyors' & Engineers'**  
Instruments, Theodolites, Transits,  
Levels, &c.,

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

## Mercurial Steam Gauges.

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DEBRAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

## BANK NOTE ENGRAVING.

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

## GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,  
CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION & FORCE PUMP

AND

## STEAM PUMPING MACHINE.

WOULD respectfully invite the attention of RAILROAD Companies and the public generally to their Pump, as the best Pump now in use; they are simple in their construction, compact, durable and not likely to get out of order; we have adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance.

These Pumps are used on nearly all the principal Railroads South and West.

Silver Medal (the highest premium) awarded at the late Fair of Ohio Mechanics' Institute.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled.  
June 21, 1855—ly

## STEREOTYPE FOUNDRY,

AND AGENCY OF

**L. JOHNSON & CO.'S TYPE FOUNDRY.**

**C. F. O'DRISCOLL,** (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of

## STEREOTYPING,

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

**C. F. O'DRISCOLL,**

168 1-2 Vine Street, Cincinnati, O.

## Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

**JOHN RICE & CO.,** Patentees.

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,

PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, **J. EDGAR THOMPSON,**

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

**WILLIAM B. FOSTER, JR.,**

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENN'A R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

**H. J. LOMBAERT,** Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

**EDWARD MILLER,** Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, **G. A. NICHOLS,**

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

**ROBERT ALLEN,**

Superintendent of Steamboats for Camden and Anby Railroad Company.

PHILADELPHIA, February 19, 1855.

**GEO. T. PARRY, Esq.,**—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

**STRICKLAND KNEASS,** Civil Engineer.



**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**  
**WHALEBONE AND STEEL WIRE BRUSHES.**  
**Artesian Well Tubes**  
**Screwed Flush inside & outside.**  
**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**  
**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**  
**WATER BACKS,**  
**For Kitchen Ranges, and the backs of fire places gene-**  
**ally, where a constant supply of hot water is required.**  
**Also for water and Steam-tables, for Hotels and Res-**  
**taurants.**  
**HOT WATER APPARATUS**  
**For warming air, boiling water and heating ovens.**  
**ANNULAR**  
**SURFACE CONDENSERS,**  
**More especially applicable for Steamers and other boil-**  
**ers, whether high or low pressure, where the only wa-**  
**ter available is Sea, Mississippi, muddy and other**  
**waters unsuitable for raising steam from, on account**  
**of their injurious effects upon the Boilers, or for other**  
**Condensers, on account of the liability to choke them**  
**up.**  
**KRUPP'S**  
**CELEBRATED CAST STEEL,**  
**For Platers, Mint laminating and other ROLLERS of**  
**any dimensions (not exceeding 18 inches in diameter by**  
**6 feet in length,**  
**CAST-STEEL CANNON.**  
**of any calibre.**  
**PATENTED CAST-STEEL TIRES,**  
**For Railway Wheels. Railway Axles and Springs,**  
**SHAFTS,**  
**For Steamers and other purposes, not exceeding 6 tons**  
**in weight, warranted for ten years by**  
**FRIED. KRUPP,**  
**Essen Rhenish Prussia.**  
**Represented solely in the United States by**  
**THOMAS PROSSER & SON,**  
**28**  
**PLATT STREET, New York.**

**CLINTON ROBSON & CO.,**  
**BRASS FOUNDERS,**  
 No. 154 Front street, between Pike and Butler sts.,  
 CINCINNATI OHIO.

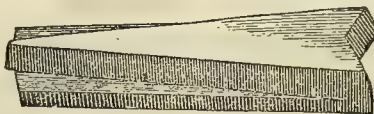
STOP COCKS, Bibb, Flange, Valve, Gauge, and  
 Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes,  
 Couplings, Salt Well, and Hose Joints; Steam Whis-  
 tles, Distillery Work, General Brassers, Anti Friction  
 Metal, Spelter Solder, and Copper Rivets.  
 Pumps of all descriptions, Brass and Composition  
 Castings, Dixon's best Black Lead Crucibles.  
 Also, Dr. Ransom's Patent Constant Suction Pump  
 for Railroad Water Stations.

**W. G. ATKINSON,**  
 Civil Engineer, Surveyor & Draftsman.  
 CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated,  
 Maps and Reports furnished; Researches made for  
 Coal, Iron, Copper, Lead, or other Minerals,  
 Metals, etc.

Contract work on Tunnels and heavy Graduation esti-  
 mated and reported in detail. Topographical drawings  
 executed and Lithographs supplied by skilful artists.  
 Mines explored, new Works laid off, and Geological  
 plans prepared. mar-ly

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel,  
 in a liquid state, can be moulded into any shape or  
 form, are, by means of this valuable discovery, manu-  
 facturing

**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Gauges**

of every description for blacksmiths' use; Steps for  
 Mill Spindles and Shafting, Swage Hammers, and almost  
 all the different variety of tools which are difficult to  
 forge. Articles made in this manner, are much super-  
 ior to forged productions, as the steel out of which  
 they are manufactured, loses none of the carbonic ele-  
 ment, but retains it in all its original purity, while  
 under the repeated heats to which it is subjected by the  
 old and tedious process, it loses much of this valuable  
 property. They are also produced in a much more per-  
 fect state, needing little or no fitting or dressing, hav-  
 ing all the accuracy of shape which moulded articles  
 possess. They can, also, be furnished at one-half the  
 cost of the others.

The qualities of the Frog-Points have been already  
 tested by the Ohio and Mississippi Railroad Company,  
 to whom the manufacturers are furnishing them through  
 G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this  
 valuable invention. LEE & LEAVITT,  
 15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the pub-  
 lic to their valuable and extensive assortment of cast  
 steel saws, and circular saw mills, etc.

**Terre Haute & Richmond R. R.**



**Summer Arrangement.**

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis  
 and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A.M.,  
 arrives at Terre Haute at 11.55 A.M., connecting with  
 the 12.30 P.M. Train of the Evansville and Crawfords-  
 ville Railroad; arrive at Evansville at 6 P.M. Steam-  
 boats leave Evansville daily for the various places on  
 the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage  
 at 3.30 P.M., connecting with the Trains of the Ohio  
 and Mississippi Railroad, arrive at St. Louis at 1.30 P.  
 M. Time from Indianapolis to St. Louis 28½ hours.  
 Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P.M., ar-  
 rives at Terre Haute at 4.45 A.M.

TERRE HAUTE TO INDIANAPOLIS.  
 MAIL TRAIN leaves Terre Haute at 7.10 A.M., ar-  
 rives at Indianapolis at 10.42 A.M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P.M.,  
 arrives at Indianapolis at 3.15 P.M., connecting with  
 the afternoon trains for Cleveland, Cincinnati and the  
 East. Mail Train stops at all way stations, Express  
 Train only at Greencastle.  
 May 28, 1855. S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.**



**SUMMER ARRANGEMENT.**

COMMENCING MONDAY JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis,  
 Terre Haute, Lafayette, Peru, Michigan City, Chicago,  
 Galena, Rock Island, St. Louis and the West. This  
 train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde,  
 Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New  
 York and Boston; connects at Forest for Crestline,  
 Pittsburgh, Philadelphia, Baltimore, Washington; and  
 at Sandusky with Train for Toledo and Chicago, ar-  
 riving at Chicago at 2.00 o'clock A. M. This Train stops  
 only at Hamilton, Middletown, Dayton, Springfield,  
 Urbana, Bellefontaine, T. Min. Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00  
 A. M., for Dayton, Springfield. Sandusky, Cleveland  
 and way stations; connects at Forest for Crestline,  
 Pittsburgh, Philadelphia, Baltimore, &c.; Also to Del-  
 phos, Lima and Port Wayne; same train connects at  
 Sandusky with steamer Bay City for Detroit; and at  
 Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN**

Hamilton Accommodation at 11.00 A.M. for Hamilton  
 and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P.  
 M., stops at all way stations; connects at Dayton for  
 Troy, Piqua, &c. and at Hamilton for Eaton, Richmond,  
 Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M., for Dayton, Springfield,  
 Sandusky and way stations. Cleveland, Dunkirk, Buf-  
 falo, Albany, New York and Boston; connects at For-  
 rest for Crestline, Pittsburgh, Philadelphia, Baltimore  
 &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train  
 stops at all regular stations, as at flag stations on sig-  
 nal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and  
 Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 &  
 9.45 A. M., 1.25 and 6.00 P. M.  
 LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.  
 LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15,  
 7.15 and 8.15 P. M.

For further information or tickets, apply at the  
 ticket office corner of Front street and Broadway, un-  
 der the Spencer House, or at the ticket office on Walnut  
 street, next door to the Gibson House, or at the Sixth  
 Street depot. HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving  
 their names at the Office.

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena & Rock Island,**  
 BY THE WAY OF THE

**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of  
 any in the West, as it passes through the richest and  
 most thickly settled portion of the State of Indiana.  
 In taking this route, passengers will reach Terre Haute,  
 Lafayette, Peru, Michigan City, Chicago, Rock Island,  
 Galena and St. Louis, as soon as any other leaving  
 Cincinnati, and with but little fatigue, in consequence  
 of the superior manner in which the roads are con-  
 structed and managed

THROUGH BY DAYLIGHT TO TERRE HAUTE,  
 LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will  
 leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M.,  
 to Richmond, Indianapolis, Lafayette, Michigan City,  
 Chicago, Galena, Rock Island and St. Louis; connect-  
 ing at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Eve-  
 ning Express—at 2.30 P. M., for Richmond and India-  
 napolis, making direct connection at Indianapolis with  
 Night Express for Lafayette, Michigan City and Chi-  
 cago, arriving at Chicago in time for early Morning  
 Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accom-  
 modation—at 6.00 P. M., for Richmond, Indiana,  
 polis and intermediate stations; resuming by early  
 Morning Trains at Indianapolis, to Terre Haute, Vin-  
 cennes, Evansville and St. Louis, direct.

Fare to Indianapolis..... \$3 50  
 " Lafayette..... 50  
 " Terre Haute..... 50

For through tickets and information, please apply at  
 the General Railroad Ticket Office, No. 169 Walnut St.,  
 or to W. A. LATHAM, at Cincinnati, Hamilton and  
 Dayton Railroad Office, corner of Broadway and Front  
 streets, under the Spencer House, or at the Sixth street  
 Depot. M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving  
 their orders at the offices.

WM. H. SMITH, Conductor.  
 feb. 8-ly D. M. MORROW, Superintendent



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

FOR FREIGHTS IN EITHER DIRECTION

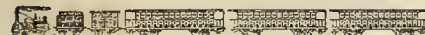
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

## Philadelphia and New York Railroads,

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, and various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 8 Baltimore.

The Shortest, Quickest and Best  
ROUTE TO LOUISVILLE.

MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.

## OHIO &amp; MISSISSIPPI RAILROAD,

ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER notice, the Passenger Trains will run as follows:

## For Louisville and New Albany.

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

Fare \$2 50.

## For Indianapolis.

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

Fare \$3 00.

## For Lawrenceburg and Aurora.

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 8.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M., 2.30 P. M., 4.05 P. M., and 9.30 P. M.

Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth Street, north side, four doors from Vine Street, opposite new Custom-house.

S. S. POST,

Chf. Eng'r and Supt.

Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.

W. S. BABCOCK, Agent,

Sept. 5. St. Louis and Cincinnati Omnibus Line.

1855. Winter Arrangement, 1855  
COMMENCING MONDAY, JAN. 29.

LITTLE MIAMI AND COLUMBUS, AND XENIA RAILROAD.—Passengers by the 6 o'clock A. M., Train, Little Miami and Columbus and Xenia Railroad, breakfast at Cincinnati, and dine the following day in New York, Philadelphia, Baltimore or Washington City.

## FROM CINCINNATI TO

To New York in .....	32 1/2 hours.
To Philadelphia in .....	31 1/2 "
To Washington in .....	29 "
To Baltimore in .....	28 "
To Buffalo in .....	16 1/2 "
To Dunkirk in .....	15 "
To Cleveland in .....	9 1/2 "
To Sandusky in .....	8 1/2 "
To Pittsburgh in .....	14 "
To Wheeling, in .....	10 1/2 "

## FOUR DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, and Wheeling Lightning Express, at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Philadelphia, and New York; Washington City, etc. Connects to Sandusky; also, at Xenia to Yellow Springs, and Springfield. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

SECOND TRAIN.—Cleveland and Pittsburgh Accommodation Express, at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline and Pittsburgh; Newark and Zanesville; Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough, connects to Sandusky. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

THIRD TRAIN.—Accommodation at 3 P. M., for Circleville and Lancaster; Blanchester and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Morrow.

FOURTH TRAIN.—Cleveland and Pittsburgh Night Express, at 5 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; connects at Xenia to Yellow Springs and Springfield. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## FARE AND THROUGH TICKETS.

For prices of fare, through tickets, and all information, please apply at the company's new office, No. 233 west side of Walnut street, between Fifth and Sixth streets, six doors south of the United States Hotel, or at the old established General Railroad office, in the three-story yellow building, south-east corner of Broadway and Front street, directly opposite the Spencer House, Railroad Hotel and Mail-boat Landing, or at the Eastern (Little Miami) Depot, East Front street.

WM. H. CLEMENT, Superintendent.

P. W. STRADER, General Agent

## OMNIBUS LINE.

The Omnibus Line calls at all the principal hotels; and by leaving directions at the office, as above, they will make private calls in any part of the city.

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted), each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

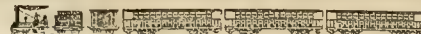
A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-tf.

## PERU &amp; INDIANAPOLIS R. R.



Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent

Indianapolis, March 22, 1855.

## Covington and Lexington Railroad.

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Can'ton, Benton, Clarkson, Demosville, Butler, Irving, Fairmouth, Cullerville, Boyd's, Berry's, Robinson's, Garrett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

## RATES OF FARE.

Covington to Lexington .....	\$3 00
Covington to Paris .....	2 40
Covington to Cynthia .....	2 00

## FOR THROUGH TICKETS,

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,

Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices

oct. 17\* CLAYTON &amp; GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and La Fayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,

Cincinnati, June 12, 1853.

Agent.

General Map Establishment,  
No. 3 College Hall, Walnut St., CincinnatiE. MENDENHALL,  
MAP, BOOK & PRINT SELLER,

Has constantly on hand

GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers,  
Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES.

DRAWING INSTRUMENTS, &amp;c.

Publisher of the

Railway Map of the Western States,

In Sheet or in Pocket Case.

The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
the LARGE MAPS OF CINCINNATI, and HAMILTON Co.,  
Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.

MAPS OF EVERY DESCRIPTION.



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNYS & PECK,  
Louisville, Ky.

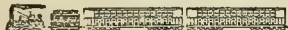
**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

Jy. 27.

RICHARD NORRIS &amp; SON.

**NUGENT'S COLLEGE****OF ENGINEERS & MECHANICS,**

PUBLIC SQUARE, CLEVELAND, OHIO.

**C. NUGENT, C. E., Principal.**

The design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.

au. 10.

**New Works on Civil Engineering.**

THE Field Practice of Laying out Circular Curves for Railroads. By John C. Trautwine, Civil Engineer.—4th Thousand, in pocket-book form with tucks.

—ALSO—

A New Method of Calculating the Cubic Contents of Excavations and Embankments, by the aid of Tables and 10 Engraved Plates of Diagrams. By John C. Trautwine, C. E.; 2d edition.

Price, one dollar each. Postage on the Curves, five cents; on the Excavations and Embankments, eight cents. For sale by

WILLIAM HAMILTON,  
Hall of the Franklin Institute,  
Philadelphia, Pa.

Sept. 21-3\*

**ENGINEERING!!**

The undersigned is prepared to furnish SPECIFICATIONS, ESTIMATES, AND PLANS, in general or detail of all kinds of

Steam Vessels, Engines, Boilers, Mill Work, &c. Particular attention given to the superintending of LOCOMOTIVES, TENDERS, CARS,

And Railway Machinery of every Description, While under construction.

AGENT FOR THE PURCHASE of, on commission, all articles required for Railroads, Steam Vessels, Locomotives, Engines, Boilers, Machinery, &c.

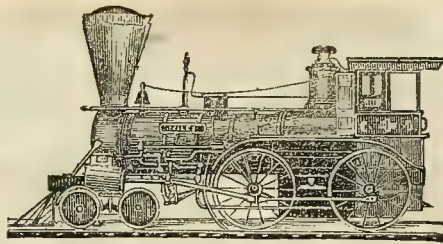
General Agent for

ASHCROFT'S STEAM GAUGE, ALLEN AND NOYES' METALLIC SELF ADJUSTING CONICAL PACKING, DUDGEON'S HYDRAULIC JACK.

Also, for Water Gauges, Indicators, Steam Whistles, CHAS. W. COPELAND,

Consulting Engineer,  
64 Broadway, N. Y.

Nov. 5 tf

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in

**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs on the part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

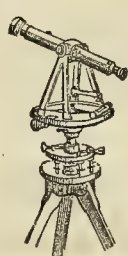
WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.



HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatus Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th. 1853.

mar. 11

**Indianapolis & Cincinnati Railroad.**

OFFICE—INDIANAPOLIS, IND.

Col. T. A. Morris,..... Pres't

ly mar. 27.

**Indiana Central Railroad.**

OFFICE—INDIANAPOLIS, IND.

I. S. Newman,..... Pres't

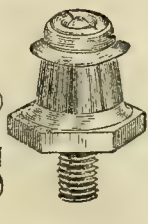
**Buffalo & Erie Railroad.**

OFFICE—BUFFALO, N. Y.

G. Palmer, Pres't, Buff. &amp; State R. R. } C. C. Dennis.

C. H. Reed, Pres't, Erie &amp; North E. R. R. } Supt,

Jy mar. 27.

**RICHARDSON'S****PATENT****OIL CUPS**

For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap. 20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship, and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. & E. Wason, Springfield,  
Massachusetts.

for 20

**Railroad Car Findings.****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

Wheels &amp; Axles, Jaws, Boxes, and Castings Fitted

Wrought Nuts, Bolts, &amp; Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight, Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

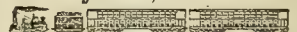
Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES.

Late Davenport & Bridges, Car Manufacturers,  
Cambridgeport, Mass.

ALFRED BRIDGES.

Late Davenport, Bridges & Co., Fitchburg, Mass.  
to 66

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tynes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan. 24th. 1853. Jan. 25-t



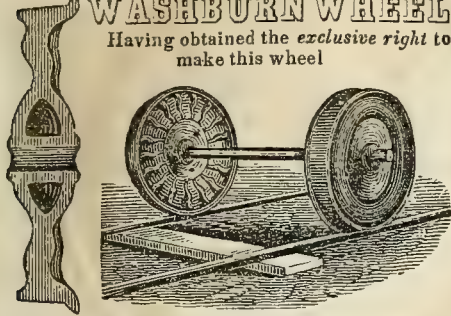
**FULTON CAR WORKS,**

CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

**WASHBURN WHEEL**

Having obtained the *exclusive right* to make this wheel



In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL.**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... G. M. RUSSELL

**DAVENPORT, RUSSELL & CO.,****Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

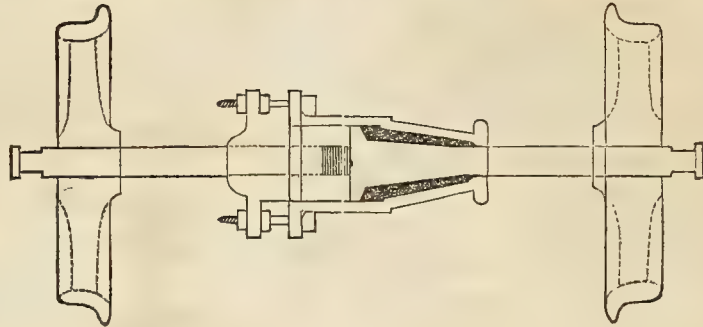
We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16\*

JOSEPH DAVENPORT.

**S. C. THOMSON & CO.,**

MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
**Cor. Railroad Avenue and Market st.,**  
n.12j **NEWARK, N. J.****DENNEY'S DIVIDED CAR AXLE.**

PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, that is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

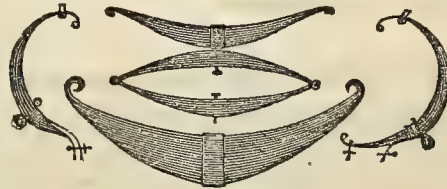
The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.**MCDANIEL & HORNER,****LOCO-  
MOTIVE****AND CAR  
SPRING****MANUFACTURERS, WILMINGTON, DEL.**

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

**References.**

**NORRIS BROTHERS, Locomotive Builders, Philad.**  
**A. C. GRAY, Prest. New Castle Manuf. Co.**  
**U. WELLS, R. R. Car Manuf. Petersburg, Va.**  
**I. R. TRIMBLE, Supt. Philad. R.R. Co.**  
MAR 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.**  
**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**  
**THOMAS DOUGHERTY, Master Mach. do.**  
**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.**

**DURYEE & FORSYTH'S  
PATENT  
PLATFORM SCALES.**

WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

**HEWSON & HOLMES,**  
83 and 85 Walnut Street.**THOS. M. CASH,****PHILADELPHIA RAILWAY AGENCY.**

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

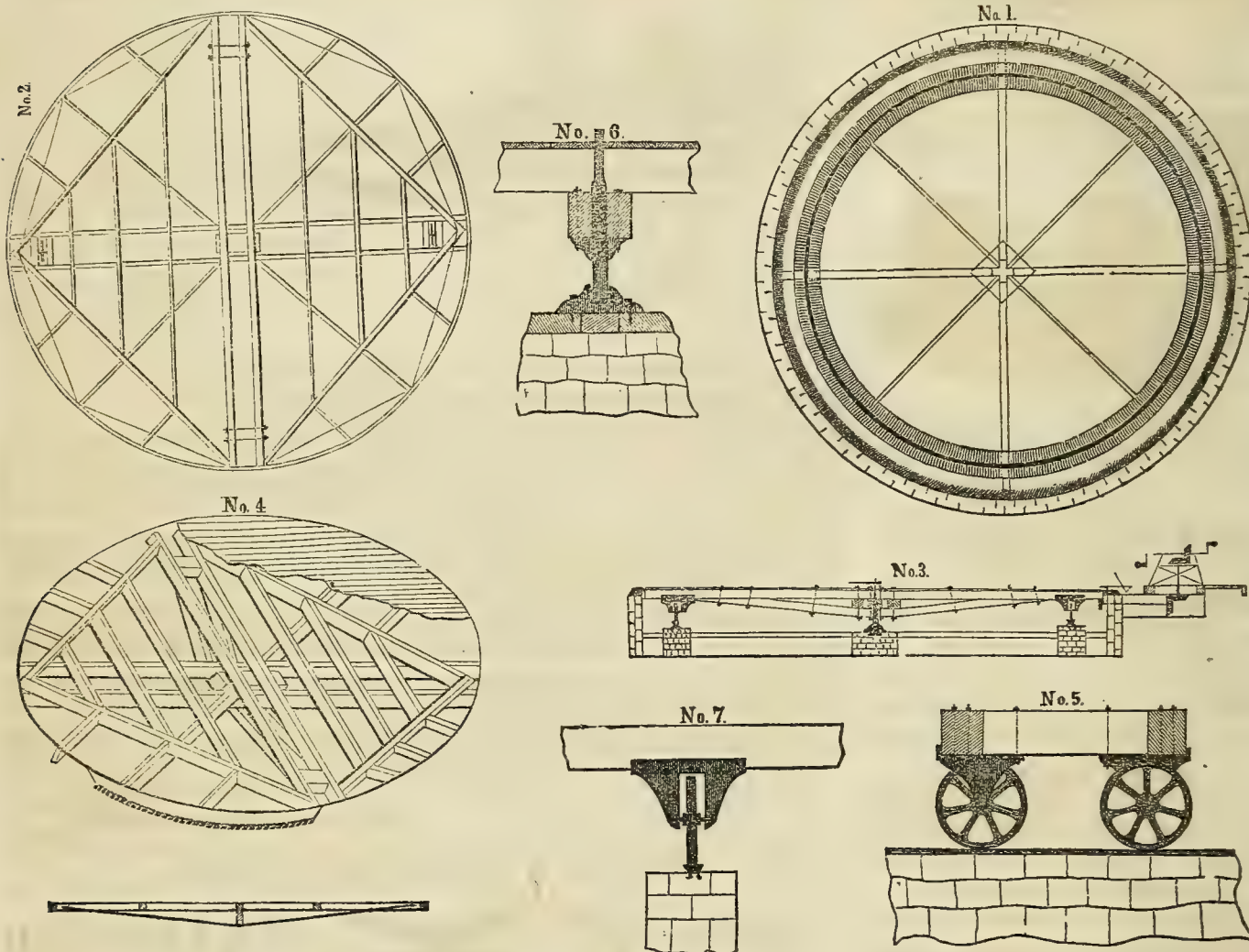
**REFERENCES.**

**Richard Norris & Son, Locomotive Builders, Philad'a,**  
**Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "**  
**Charles H. Fisher, Esq. "**  
**Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.**  
**Pinckney Huger, Esq., Pres't N.E.R.R. Co. "**  
Oct. 13-14.



# CARHART'S IMPROVED TURNTABLE.

Now building, for 13 Principal Roads in Ohio, Indiana, New York, New Jersey and North Carolina.



This Table, together with an Engine and Tender of 30 Tons Weight, can be turned by One Man in 25 Seconds.

RAILROAD COMPANIES in want of Turntables of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction.

The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.

Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.

Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Sup't, Cleveland, Ohio.

Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.

Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.

Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.

Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.

Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Sup't, Marion, O.

Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.

Wilmington & Raleigh Railroad, North Carolina.

Central North Carolina Railroad.

Cincinnati & Indianapolis Railroad, Indiana.

New Albany & Salem Railroad, Indiana.

Michigan Central Railroad, Michigan.

Dayton, Xenia & Belpre Railroad, Ohio.

Pomeroy Railroad, Engineer at Cincinnati.

Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of Bank and Track Walls, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step, through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

D. M. CARHART, Cleveland, Ohio.

## RAILROAD HOTEL.

CINCINNATI, O.

THE GIBSON HOUSE, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.

A. WETHERBEE, Proprietor.

## TO RAILROADS AND CONTRACTORS.

HORSE POWERS.—The undersigned being agents for the sale of R. H. Pease formerly Emery & Co.'s Horse Powers, are prepared to furnish them to order. They occupy little room and do their work effectually. T. WRIGHTSON & CO.

## RAILROAD IRON.

I WOULD respectfully call the attention of Railroad Companies and Contractors to my facilities for

## NOTCHING RAILROAD IRON

Suitable to be spiked in the chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. S. M'KENNA, Jan 11.-18. Cincinnati P. O., Ohio.



In conclusion of this subject, while we invite the careful attention of the officers of the railroad companies centering in Cincinnati, to a subject of vital importance to them, we would also suggest to the Chamber of Commerce of this city the propriety of a frank discussion of this measure as one in which its members must feel a deep interest. It is too often the case that measures of public utility are left to the avarice or cupidity of individuals, till too late to be of general benefit. No one has a deeper interest in the general prosperity than the merchant, no one should be more alive to the importance of measures which tend to promote his prosperity, and no one more intelligent in devising the means to develop it.



# THE EFFECT OF IMPROVED LOCOMOTION ON THE SOCIAL CONDITION AND HAPPINESS OF MANKIND.

Of this vast subject, worthy to occupy an octavo volume of the highest investigations of the most exalted minds, we can only give here a hint or two; but enough to suggest a long sequence of important consequences. The great improvements in locomotion have been five folds, viz:

1. The adoption of *sails* instead of oars, by which vessels from being mere 'coasters' began to cross the smaller seas and gulfs.
2. The application of the Compass and of Astronomy to navigation.
3. The improvement of naval architecture, by which packet ships were enabled to make voyages, with rapidity, and certainty.
4. The invention of the Railway.
5. The invention of the Steam Ship.

If we look to the consequences of these great improvements in locomotion, we shall find them followed by vast improvements in the social condition of mankind. Under the first improvement, we find the establishment of the Grecian Colonies around the shores of the Mediterranean. These were the foundation of the first great commercial states, and were succeeded by the modern civilization.

The *second* improvement, that of the application of the Mariner's Compass and of Astronomy to the art of navigation, was attended with still vaster results. Since that improvement, Columbus discovered America, the West Indies have been colonized, the United States been founded, the Empire of Brazil, and the Republics of South America established.

The *third* improvement, that of improved Naval Architecture, has enabled England, France, and other European nations to build packet ships of large size, and keep up the communication between Europe and the various colonies established in Asia, Africa, and America. Thus England has maintained her intercourse with India, the Cape of Good Hope, Canada, and her numerous possessions over the earth.

In this, we must remember, that it is not merely commercial intercourse which has been attained; but it is the positive civilization and improvement of mankind. What has not India gained by English colonization? Where would be the Missionaries in Asia but for English commerce? And, what would English commerce be without the arts of locomotion?

The effects of the *fourth* improvement, the *Railway*, we are now in the midst of. With twenty thousand miles of railway in the U. States, men are running to and fro over the earth, as if the last days predicted by the prophets were really come. The changes in social intercourse, and in the relations of business are wonderful. A thousand miles are

reduced within a hundred, and a hundred persons are moving where one did before. The effect of all this is to equalize the country, and promote social intercourse. The remote is brought near and the people of all parts are made acquainted with each other.

The *fifth* and last improvement in locomotion promises to be greater than either. The steam ship has reduced the length of the passage across the Atlantic to less than one-third, and brought nations nearer together. Great improvements, doubtless, remain to be made, and the full development of steam power will almost make all nations one, and will arm the Christian civilization with a power which will make it predominant over the whole earth.

Let us look at some of the consequences of this improved locomotion in settling and colonizing the earth. One of the greatest and most important is the increase of *immigration*, by which the surplus population of old countries is thrown on the new, by which both are improved. Take, for example, the *migration* of Great Britain.

The density of population in Great Britain, that is in England, Scotland, Wales, and the Islands, is as follows:

Area.....	90 088 sq. miles.
Population.....	27,000,000
Density.....	269

At the same density the State of Ohio would contain nearly twelve millions of people! It is obvious enough that Great Britain, in the present imperfect cultivation, is overpopulated. It was this which occasioned the Irish Famine, and the migration from that Island. Ireland contained about 400 to the square mile, at the height of its population. If locomotion had remained in the same condition as in the days of the Roman Empire, what would have happened?—Still greater famines must have occurred. Pestilences would have taken place, and the Empire of Great Britain perished, long before this. Not only that; but, the dark places of the earth would have remained dark; and the triumphs of modern civilization never known. Let us turn a moment to the actual picture of that migration and its consequences; which has followed in the path of the new Locomotion.

The number of persons, who migrated from Great Britain in 1854, were:

To the United States.....	199,993
" Australia.....	23,162
" Canada.....	49,621
" Other places.....	3,356
Total.....	283,112

Since 1840, the aggregate emigration from Great Britain has been 3,133,414 persons, making an average of 223,000 each year. If we suppose them to have migrated to different places in the same proportion as in last year, we have this result:

To the United States.....	1,878,000
" Australia.....	784,000
" Canada.....	400,000

Thus we see, that in fourteen years only,

Great Britain has colonized nearly eight hundred thousand people, in what was but a little while since, regarded as the dark and desolate land of Australia. In the same time, she has sent half that number to the banks of the Ottawa and the St. Lawrence; and as many to the United States as to both the others.

In the meanwhile what has happened in the United States? We have colonized the shores of the Pacific, in California, with one hundred and fifty thousand of our own people; and they have returned to their country, not less than three hundred millions of dollars in Gold. We have established the colony of Liberia; so that it will spread the light of Christian Civilization over Western Africa; and we have opened the Ports of Japan to commerce. What has done this? *Science applied to locomotion*. How would the shores of the Pacific; of the Indian Ocean; of the Carribean Sea, and the remote Arctic, be navigated by the vessels of the Greek or the Roman? They would have remained a sealed book to this time, but for the modern art of locomotion.

If we would know something of what this locomotion has done for the happiness of mankind, we must consider the condition of the millions of people who have migrated, if they had been shut up in their own countries; and the condition of the countries to which they have gone. On the one hand, pestilence, and famine would have destroyed them, as they did the civilized nations of antiquity, before science came to the aid of locomotion. On the other hand, darkness, and barbarism would have continued to reign over half the earth.

It is in the light of this great physical movement, that we can understand the meaning of the Prophet when he mingled the picture of men running to and fro over the earth, with the idea of a world restored to peace and happiness. The Revelation of Science goes *pari passu*, with the Revelation of the Gospel. The means and the inventions which give triumphs to the former are instruments in the fulfilment of the latter. What may not one born after the advent of what has already come to pass expect to see, as he looks over sea and land, covered with the swift Messengers of Christian Civilization, dispensing light and knowledge over the dark mountains and secluded vales.

**THE MOSELEY BRIDGE Co.**—Our readers will remember a notice of a new bridge at Covington, built on the plan of Gen. Moseley. The supporting parts of these bridges are wrought iron tubular arches, of double thickness of plate iron. The experience of the bridge at Covington, shows the plan to be an excellent one, and one which from its cheapness and solidity, will become a favorite style of bridging. For view of the bridge, see cut in advertisement.



## CITIES OF THE WEST, NO 8.

## KEOKUK—IOWA.

Keokuk is situated on the Mississippi river, and named from the great Sac Chief—Keokuk. It is a place of most rapid growth and prosperity. It was laid out in 1837, partly by D. W. Kilbourne, Esq., now Mayor of the city. There were then a few log cabins on the river bank, which had been used by Indian traders. Since then the progress of population has been thus:

In 1842	-----	100
In 1845	-----	460
In 1850	-----	2,773
In 1852	-----	3,963
In 1855	-----	6,000

It has several manufactories, and is supposed to have more business than any other place in Iowa. It has six Churches, and several Schools. There are four newspapers, and the Medical Department of the Iowa University is located there.

Keokuk is one of many remarkable examples our country has furnished of rapid growth and prosperity, where there was but recently the wilderness and the savage.

## EDITORIAL CORRESPONDENCE.

CENTRAL OHIO R. R., July 17, '55.

*My Dear Record.*—As I know you like to hear of the whereabouts of your truant friends, I shall try to keep you posted about my wanderings, with here and there a dotting by the way. Ohio never looked more beautiful than it does now. The natural fertility of its soil joined to the fruitfulness of the present season makes the scenery very attractive, but as I know my friend Record to be rather a prosy character, more given to facts and figures than to poetry, I shall not tax you with a disquisition on the beauties of the scenery, but proceed to tell you what I think will interest you. On the Little Miami R. R. I had a seat in a car fitted with a Patent Ventilator where all the fresh air comes in through the floor. This car was free from dust, and well ventilated. Traveling in such a car comes within one of railroading in perfection. Some one has said that the perfection of railroading would be to travel *sans* dust, *sans* smoke, *sans* noise. The first two have been done, but the last, *sans* noise, we opine is yet very distant.

The Central Ohio Railroad, on the cars of which I am now writing, has in every respect exceeded my anticipations. It is a new road, not yet open a year, and yet I am here scribbling away at the rate of 40 miles an hour; for we have made 33 including stops. The road is well ballasted and in good order. It is laid with heavy T rail, and instead of passing over light, blow-away sand, I find that thus far at least it passes over much better material; a great portion so far passes over the best of gravel, a material not surpassed anywhere.

Zanesville, where I stopped half a day, shall

be the subject of my first dotting. It is a town of about 10,000 inhabitants, and has river, canal and railroad facilities. It is a quiet little place, but yet one of considerable business. There is here a large locomotive establishment, an extensive car shop, owned by our friends, Douglas, Smith & Co.; a large foundry, an extensive paper mill, flouring establishment, etc. The car shop of Douglas, Smith & Co is situated on the Central Ohio Railroad, and occupies several buildings. It was this firm which built the substantial iron bridge across the Muskingum, for the C. R. R. The structure does them credit. Directly above the bridge is the dam across the Muskingum, and at a short distance to the right, the dam across the Licking. The height of fall is about 17 feet, giving full 16 for purposes of water power. Zanesville is also situated on a coal bed, which gives it cheap and good fuel.

Mines are worked on the line of the railroad four miles east of Zanesville, by H. J. Cox & Co. These gentlemen own the large paper mill. They use steam power, and burn coal from their own mine. Their paper mill makes all the telegraphic paper used in the United States.

The Central Ohio Railroad is in good repair; its locomotives are powerful engines, and make good time. A visit to its repair shop convinced me that this part was well kept up. And promptness in these, as in other repairs, is the secret of economical operating. The earnings of this road last month were over \$36,000, and have steadily increased since it opened. At this rate, they would amount to about \$4,000 a mile for the present year, and when it is remembered that but few of the old roads earn more than \$7,000 per mile, and that from \$2,000 to \$3,000 per mile is a fair average for a new road, it will be seen this is doing well. We had a few moments ago an instance of careful management: as we were speeding along a person was heard on a neighboring hill hollowing to the train; we were turning a curve, and the engineer could not see ahead. The conductor promptly stopped the train, sent a person ahead, and would not proceed till he had ascertained that all was right.

**WATCHES FOR RAILROAD PURPOSES.**—We would call the attention of our readers to the advertisement of the Bradley Bros., of Cincinnati. These gentlemen import a watch designed especially for railroad uses. The watches are finely finished and not liable to derangement by the jarring of the train. The value of such a time piece is too well known to need commendation. The Bradley Bros. are enterprising young men, and we trust will be well encouraged in their attempt to supply a reliable watch for the use of engineers and conductors.

## Railroads.

## CINCINNATI, CUMBERLAND GAP AND CHARLESTON RAILROAD.

The Board of Directors of the Cincinnati, Cumberland Gap and Charleston Railroad Company met this day according to previous order, the roll of members being called, the following were present, viz: M. Carager, President; Jacob Shultz, A. D. Woodson, W. S. Thomas, David W. Whiteside, Drewry Morris, L. A. Garrett, L. D. Frankland, Jas. W. Shelton, J. W. R. Frankland, A. E. Smith, and Stephen Huff.

After the Board was called to order by the President, it was moved that a committee of three be appointed to draft a code of Rules for the government of the Directory, and to define the duties and power of the various departments of the company. The President thereon appointed the following named persons, to wit: L. A. Garrett, A. E. Smith, and David Whiteside, who withdrew for a short time, then returned and reported.

On motion the subject of locating said Road was taken up. The Engineer, Capt Owens, being present, was called upon for a report of his last surveys, etc., which was presented with explanatory remarks, and is in the following words and figures, viz:

ENGINEER'S OFFICE, June 21, 1855.

To the President and Directors of the C., C. Gap & Charleston Railroad. Gentlemen: Since your last meeting the surveys of Knob Creek Route, as also of a new route near Morristown have been completed. There are now four lines from Holston river to Weavers Store, on French Broad river. The profiles etc., are herewith submitted.

The following will be the cost and distances of each line:

	Costs.	Distances.
1st. Morristown Line, crossing Ray's Mountain near head of Sulphur Spring Valley, viz. \$392,429 15	33	3157
2d. Morristown Line, crossing Ray's Mountain at Edgar's Summit.....	460,129 55	33 1200
1st. Parrottsville Line, following Valley of Oven Creek....	332,283 80	35 4400
2d. Parrottsville Line, following Valley of Knob Creek.....	345,520 00	33 3900

Upon the first Morristown and upon the first Parrottsville Line, there was an allowance of \$46,000 made to meet contingencies, salaries of officers, etc. Upon the second Morristown and upon the Knob Creek Line, no such an allowance was made. These surveys having been hurriedly made, it was probable a sufficient amount would be saved to meet the contingent expenses. It is important that some selection of a route should be made, and that the location and letting of the bridges of Clinch and Houlston be proceeded with. If it be delayed with much longer, it will be impossible to take advantage of the low water of the fall months, and



the work of putting in the foundations be delayed until next summer. Respectfully,

R. S. OWEN, *Chief Eng.*

Conditional stock was presented to the Board to influence the location of the road, which the Board resolved not to receive. Considered it valueless to the Company and that that mode of getting up stock would militate against the best interest of the road.

The following resolutions were then offered and adopted by the Board, viz :

*Resolved*, By the Board of Directory that further preliminary surveys on the line between Crosby's and Weaver's Store will only add to the expenses of the Company, and no wise enable them to select a shorter, cheaper or better route, than those already surveyed, and that they give all the information that can be useful in the location of the said railroad, and that the Board now proceed to the location of the same.

*Resolved*, That the Cincinnati, Cumberland Gap & Charleston Railroad, be and the same is hereby located to run as follows, viz : Commencing at Cumberland Gap, running the most practicable route through or near Tazewell to Notch Gap, thence from Sand Gap near to Beans Station, thence from near Beans Station to or near Caleb Casbys, thence the most practicable route crossing the East Tennessee and Virginia Railroad at Morristown, thence the most practicable route to the Valley of Lick Branch, crossing the French Broad river, near the mouth of Sand Branch, thence the most practicable route to the North Carolina line, to or near Paint Rock.

*Resolved*, That the President and Engineer in chief of said railroad company be and they are hereby authorised and required to proceed to contract for the grading of thirty miles of railroad, to commence at Morristown at the point where the said railroad will cross the East Tennessee and Virginia Railroad, and to extend north to where said railroad will cross the main stage road near Beans Station, and south so far as will make a line of railroad of thirty miles in length. Also, to contract for the construction of three bridges, one across Clench river, one across Holston river, and one across the French Broad river, upon the best terms possible.

*Resolved*, That L. D. Frankland, L. A. Garrett, and Drewry Morris be and they are hereby appointed an Executive Committee.

*Resolved*, That a Railroad Convention be held at Morristown, Tenn., the place where the East Tennessee and Virginia rail will be intersected by the Cin., Cumberland Gap and Charleston Railroad, on Wednesday, the 15th day of August next, and that the friends of railroads generally be requested to attend.

*Resolved*, That Col. Wm. M. Cocke, Gen. A. E. Smith, Major L. D. Frankland, Col. L. A. Garrett, D. W. Whideside, and Drewry

Morris be and they are hereby appointed a committee of correspondence.

*Resolved*, That John F. Noe, Jas. W. Shelton, John B. Jackson, N. F. Reed, and John Million be appointed a committee of arrangements for the occasion.

*Resolved*, That inasmuch as the Board has heretofore made calls on stockholders to the amount of one dollar per share, that the Secretary and Treasurer now furnish the various collections appointed by the Board in the various counties a list of the names of stockholders in their respective counties, and the number of shares taken by each, and that he have advertised in the Dandridge Herald, and Rogersville Times, that all stockholders in said road will be required to pay their dues within thirty days from date, and that calls shall hereafter be quarterly, until otherwise ordered by the Board, and that collectors be allowed three per cent. upon all moneys by them collected and paid over to the treasurer.

*Resolved*, That Thomas S. Gorman be and he is hereby appointed collector of the calls of stock, an Agent to solicit stock, and to procure the right of way in the County of Cocke.

On motion it was ordered by the Board that the proceedings of this meeting be published in the *Railroad Record* of Cincinnati, *Ashville Spectator*, and other newspapers friendly to said Railroad enterprise.

On motion the Board adjourned to meet in Morristown, Tuesday, the 14th day of August, 1855.

M. CARRAGER, President.

WM. NEIL, Sec. & Treas.

#### CLEVELAND AND MAHONING RAILROAD.

The following statement of the present position and aims of this company was made on June 25, by Jacob Perkins, Esq., President of the Company, to C. H. Fisher, Esq., of Philadelphia.

"The Cleveland and Mahoning Railroad Company are engaged in the construction of a Railway from Cleveland, Ohio, to New Castle, Pennsylvania, where it will connect with the North Western Railroad, now in successful progress to Blairsville, on the Pa. Central Railroad, thus forming an unbroken chain of continuous guage from Cleveland to Philadelphia, which its friends believe will occupy the very first rank among the railway thoroughfares from the Lakes to the Atlantic. It will furnish the shortest line for passenger travel from Cleveland and all the Lake ports West of Cleveland, including Chicago, to either Baltimore, Philadelphia or New York, and in connection with propeller or vessel lines from Philadelphia, will afford the cheapest railway freight route from Cleveland to New York and Boston.

"The engineering characteristics of the line are as follows:—The maximum grade coming west is twenty-one feet per mile—the

maximum grade going east, with one exception at the point of leaving the Lake Shore, is twenty-six feet per mile. There is a large per centage of straight line and the minimum radius of curvature is nineteen hundred feet. The Company possess very extensive and valuable grounds on the harbor of Cleveland, abundant for the handling and shipping of any amount of freight—ground which we believe superior for the purpose indicated to any other in the harbor, and equal to any on the Lake. The line of the road can be so adjusted at any desirable height above the waters of the harbor, as to enable coal or other heavy freight to be delivered from cars into vessels lying inside the piers without handling, upon any scale desired by the future development of the trade.

"The Cleveland and Mahoning Railroad Company will open their road, seventy miles, to Youngstown the present year. The iron is purchased—about two thousand tons have already been delivered on the line, and the track laying has just commenced. The company have closed negotiations for the sale of an issue of first mortgage bonds, to supply the iron and equipment of the line.

The profitable character of the road, when the entire line of which it is a part shall be completed, and becomes a principal avenue between the commerce of the Lakes and that of the Atlantic, needs no demonstration.

"I submit an estimate of profits when completed to Youngstown, as it will be the present year, based on its local traffic alone.

COST.—Cost of Road to Youngstown, for which the means are provided, is estimated by the Chief Engineer.....\$1,533,639  
Add for excess of caution to cover all contingencies, say.....416,262

Total.....\$2,000,000

#### LOCAL TRADE AND RESOURCES.

1st. *Passengers*.—The population of Ohio, by the census of 1850, averaged, (including cities) a little less than fifty per square mile. The township through which this road will run, average (excluding Cleveland the only city) sixty-four per square mile, and the road commands undoubtedly, a larger town and village population than any road leading into Cleveland, embracing a number of prosperous trading and manufacturing towns, and a well cultivated agricultural country.

2d. *Freight Traffic*.—From the Mahoning valley has been sent the past year, an aggregate tonnage of about 250,000 tons, embracing coal, iron, flour, cheese, and large quantities of grain, lumber and miscellaneous agricultural articles. The coal trade is increasing at a very rapid rate, the production in 1849 being 750,000 bushels, and in 1854, 4,200,000 bushels. The iron trade is increasing at nearly an equally rapid rate—the production in 1852 being about 20,000 tons and in 1854 over 40,000 tons.

The importation of the rich ores of Lake



Superior and Champlain is becoming a large item of business, running up in the last four years from 1,500 to about 15,000 tons. The heavy trade in this class of articles (coal, iron and ore) is destined to an immense increase, the power of production being unlimited except by the amount of labor at command, and the market being almost unlimited, also, embracing every port on a Lake coast of more than 3,000 miles.

The location of the road is such that it cannot be superceded in this description of business, running as it does from the city of Cleveland—the principal city on the south side of Lake Erie, exactly at right angles to the boundary of the Alleghany coal field, and penetrating it in connection with the North Western Road, a distance of more than one hundred miles by an easy and favorable line.

**CANAL OWNED BY THE RAILROAD CO.**—The heavy trade referred to has been created by the Pennsylvania and Ohio Canal, a work which was completed in 1841 and furnishes the present route for the traffic. It was not at first successful as a paying enterprise, the country at the period of its construction being undeveloped, but it has gradually created the above trade which has redeemed its financial condition. It is now entirely out of debt and in a good condition of repair, and rapidly increasing in business.

This work is now controlled by the Railroad Company, they having lately purchased and now holding over \$550,000 (being a voting majority) of its stock, which has cost about \$220,000 of the Companies stock.

The Railroad Company has made the purchase (notwithstanding their confidence that the road could transport, under a state of close competition, cheaper than the canal) in order to secure a harmonious management of the two works, and believing that the rapid development of the trade will furnish full employment to both.

**SUMMARY AND ESTIMATE OF THE BUSINESS OF THE ROAD.**—With the explanations, I submit an estimate of the business of the road finished to Youngstown.

#### ESTIMATE PER AVERAGE DAY.

Passenger travel equivalent to 100 passing over the whole route each way, at \$2 each.....	\$400 00
Agricultural and miscellaneous freights, (including iron,) 100 tons at \$2 per ton.....	200 00
Coal, 400 tons at \$1 50 per ton.....	600 00
	<b>\$1,200 00</b>

Amounting for the year of 313 days, to.....	\$375,600
Expenses, say 46% per cent.....	175,610

Profits. (or ten per cent on cost.).....\$40,000

The data for this estimate are all within our immediate observation and must be safe, for instead of exceeding, they are largely within the present ascertained amount of the traffic of Mahoning valley.

The Company expect to place the balance of the road—from Youngstown to New Castle, 18 miles—under contract during this season, to be finished next spring.

#### CLEVELAND AND MAHONING R. R. CO. EXHIBIT.

Cost—Estimated cost of Road, eighty-five miles long, from Cleveland to New Castle.....	\$1,956,150
Cost of Canal to R. R. Company.....	219,066

Total cost of Railroad and Canal.....\$2,175,216

#### MEANS.

Stock subscribed (including stock due contractors and subscription of Lawrence Co., (\$742,146 paid up).....	\$1,211,833
First Mortgage Bonds (\$600,000 sold).....	850,000
Second Mortgage Bonds, (\$300,000 sold).....	600,000
Canal dividend of 1854 and 1855, say.....	25,000
Credit from Pa. R. R. Co.....	40,000
Credit from C. C. & C. R. R. Co.....	24,000

\$2,650,833

Excess of means to cover contingencies, interest and discounts.....	\$475,617
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#### INDIANAPOLIS AND CINCINNATI R.R.CO.

CINCINNATI, July 12, 1855.

The Earnings of the Indianapolis & Cincinnati Railroad for June, 1855, are:

Passengers.....	\$14,578 42
Freight.....	12,724 75
Mail and Express.....	1,112 08

\$28,375 25

June, 1854.....21,400 80

Increase 1855.....\$ 6,974 45

Total 2d quarter, 1855.....\$90,463 75

" " 1854.....58,210 56

Increase 1855.....\$ 32,253 19

Total six months, 1855.....\$176,444 04

" " 1854, corresponding mos. 119,866 34

Increase 1855.....\$56,577 70

#### CANAL TOLLS.

The amount received for Tolls on all the New York State Canals during the fourth week in June, is.....

Same period in 1854.....\$66,599 51

\*Decrease in 1855.....\$ 40,175 49

The aggregate amount received for tolls from the commencement of navigation to the 30th of June, inclusive, is.....

Same period in 1854.....\$774,702 92

Decrease in 1855.....\$145,256 74

\*This decrease is owing, in a great degree, to the breaks in the Champlain, Genesee Valley and Chenango Canals

#### MISSISSIPPI AND MISSOURI RAILROAD.

We learn from the Muscatine, Iowa, Journal, that a contract has been made for the construction of this road from its junction near Moscow, through Muscatine, to the forks of Cedar and Iowa rivers, thirty-four miles. The terms of contract as given in the Journal, are that the Messrs. Farnham & Durant agree to build the roads, with equipments, station houses, work shops, etc., for \$31,000 per mile. They are to put it in running order from Moscow to Muscatine, twelve miles, by 1st of January, 1856, and from Muscatine to Cedar and Iowa Rivers, as speedily as possible, before 1st of October 1856. Ninety-five thousand dollars County Bonds are to be delivered to the contractors as soon as the contract is written. The bonds to be ten per cent., payable in New York, semi-annually. One hundred and thirty thousand dollars, county and city bonds, to be delivered as soon as the rails are laid from the junction at Moscow to Muscatine, twelve miles. Thirty thousand dollars being the balance due on private subscription, to be paid on demand, and applied on the line West of Muscatine. The above payments to be in addition to what has already been advanced.

The Journal continues to say: It is confi-

dently expected that we shall have the cars thundering into our city by the 1st of October next, if it is possible to procure iron when needed. The western branch of this road hence to Oskaloosa, is of vast importance to this city, and should be hastened to completion with all possible dispatch.

#### ILLINOIS AND WISCONSIN RAILROAD.

The first train of cars to Woodstock, the county town of McHenry County, reached that place on Wednesday evening. The train consisted of twenty freight cars, and they were loaded as soon as possible, and reached Chicago at two o'clock yesterday morning. The freight consisted of eight thousand bushels of wheat, and by last evening it was all shipped and ere this is on its way to Buffalo.

The road will continue open to Woodstock only two or three days, to enable the produce dealers in Woodstock to send forward the grain which has accumulated there, when the entire line will be stopped for about two weeks, to give time to alter the gauge of the road from the six feet to that of the four feet eight and a half inches. This is the width of the gauge of all the other roads leading into this city, and it has been deemed for the interest of the company to change it so as to make it uniform with the other roads. The energetic superintendent, F. S. Johnson, Esq., has parties of men all along the line of the road preparing the ties and drawing most of the spikes, so that the road can be put in running order at the earliest possible moment.

We learn that it will not be so difficult or so expensive a job to change the gauge as might at first be supposed. The car axles are simply cut and welded, and with a very little alteration in the trucks, all the freight and passenger cars can be adapted to the new gauge. Six new locomotives are on their way to this city and will be here before the road is again opened.

In two weeks, therefore, we may expect the road to be permanently opened to the heart of McHenry County. It is one of the finest counties in Northern Illinois. Our citizens may well rejoice that so important a point is so soon to be reached by railroad.

**MINERAL WEALTH OF ENGLAND.**—On the authority of Mr. Robert Hunt, government keeper of mineral records of England, the following statement is regarded as an approximation of the annual value of its mineral wealth:

Coal raised at the pit's mouth.....	£11,000,000
Iron.....	10,000,000
Copper.....	1,500,000
Lead.....	1,400,000
Tin.....	400,000
Silver.....	210,000
Zinc.....	10,000
Salt, Clay, etc.....	500,000

Total.....£24,620,000

This is the value of the raw material. When the cost of labor employed in converting this mass of matter into articles of utility or objects of ornament is added, it will be swelled a hundred fold.

**CIN. AND WABASH RAILROAD.**—This Road is now contracted again. The parties are Ward, Gordon & Jones, of Piqua, Ohio, who are said to be making preparations for the work. John Brownlee, Esq., is attorney for the company in this County, and they want money to carry on the work. See his notice.



## PITTSBURGH AND CONNELLSVILLE R. R.

This road is steadily progressing, and in a few weeks will be opening from West Newton to Conneltsville. Subscriptions, amounting to \$150,000, have lately been received, and a handsome sum is expected from the city of Cumberland. The following is an extract from the inaugural address of the new Mayor W. W. McKaig, Esq.:

I have been requested to call the attention of the Council and our citizens to the subject of the construction and completion of the Pittsburgh and Conneltsville Railroad. This work is now in progress—a part of the road has been finished and the cars are running upon it—the tunnel, being the heaviest section, is now progressing, and its friends are making every effort for its completion to the town of Cumberland. The limits of this communication will prevent me from presenting any detailed statement of facts or argument to show that our city is most deeply interested in the construction of this road. Its importance and influence on the wealth and commercial interests of our city and county has not been duly considered by our citizens. I lay before you a letter from the President of the company, handed to me by a gentleman well known to our citizens, giving some facts and reasons why our city in its corporate capacity, or by its citizens individually, should give substantial aid towards the completion of this road. The completion of this road will no doubt add more to the population, wealth and commercial prosperity of Cumberland than any other. This is the eastern terminus. It is the shortest road and of the lowest and most favorable grades, of any railroad crossing the mountains, and connecting our town with the great West. No subscription to its stock or its bonds has been made by our citizens, or by our town in its corporate capacity, although other towns and cities on the line of the road have subscribed liberally. The mining manufacturing operations now developing the vast mineral resources of our county, the construction of railroads by the several mining companies, all concentrating at Cumberland and its vicinity, are also adding greatly to the growth and commercial prosperity of our city. The additional mineral resources in our county and on the line of the road west, which would be developed by its completion, together with the trade and travel on the road terminating at Cumberland, ought strongly to commend it to our citizens and ensure their aid and assistance. Upon a further subscription to the stock or bonds of the company, the eastern section of the road will be put under contract, and the company can realize a large conditional subscription, a guarantee of its bonds, enabling it to raise funds to be expended on the Will's Creek division of the road sufficient to ensure the completion of the whole road. Our city has no authority in law to do anything in its corporate capacity without further legislation and authority from the State. But we can present the subject to our citizens and urge them to adopt such proper and early action as may be expedient. We have now five railroads, the Chesapeake and Ohio Canal, the National Road, and West Newton Plank Road, all passing through and concentrating at Cumberland and its immediate vicinity, and with several other lateral roads in the county. These improvements, constructed at great expense and capital, are the means of developing the vast mineral treasures of our county,

and have already caused, in a great measure, the growth, wealth and commercial prospects of our city and its citizens.

The following from the *Cumberland Telegraph* is on the same subject, and shows what is doing to promote the success of this great work:

[Extract from a letter to the editor]

## PITTSBURGH AND CONNELLSVILLE RAILROAD

The following extract of a private letter to the editor of this paper will be read with much satisfaction, as it treats of a matter of vital importance to our citizens. Upon the early completion of the Pittsburgh and Conneltsville Railroad mainly depends the future growth and prosperity of our town, and its great importance to our interests renders it absolutely necessary that something should be done by us to aid in its speedy construction, and to show our appreciation of the efforts made by others from which we are to derive great and lasting benefits. We hope the matter will meet with that consideration its importance demands, and that instead of talking our citizens will proceed to act effectively in the premises:

DEAR SIR:—I was very much gratified to see in the last number of the *Telegraph* the liberal and just views presented by your Mayor to the new Council on the subject of the Pittsburgh and Conneltsville Railroad, which he truly represents as the shortest and best route between the east and the west, and when made it cannot fail to be one of the best paying roads in the Union. This road from Cumberland to Pittsburgh will be 58 miles shorter than the present Baltimore and Ohio Railroad to Wheeling, and if you add 83 miles equal distance on account of the grades (exclusive of curves) it will make the difference 136 miles in favor of the Pittsburgh and Conneltsville road, making it in fact nearer from Cumberland by Pittsburgh to Wheeling, than to go by the Baltimore and Ohio Railroad; besides, at Pittsburgh, you find much better connecting roads to the lakes, the North, South, and through the middle and western States to the Rocky Mountains. On this route there is but a single summit, and no grade over 64 ft., (instead of 120 on the Baltimore and Ohio Railroad.)

The western portion of the road is now rapidly progressing towards completion, by funds raised in the west, viz: \$750,000 by the county of Allegheny; \$500,000 by the city of Pittsburgh; \$100,000 by the borough of Conneltsville, besides other corporation and individual subscriptions in Allegheny, Fayette, and Somerset counties, amounting to several hundred thousand dollars more. As soon as a sufficient sum is subscribed in Cumberland and vicinity to obtain the Baltimore guaranteed bonds, amounting to one million, the eastern section from Cumberland to the Sand Patch Tunnel will be put under contract, and soon be brought into use, leading to an immediate disbursement of over a million of dollars in the immediate neighborhood of Cumberland. I understand the company offer to make the bonds of your city payable in 30 or 40 years as cash in full of their subscription, agreeing to pay the interest and pay into the Cumberland treasury the surplus revenue over 6 per cent. The city of Allegheny and other western corporations have been realizing large dividends on the subscriptions without ever having paid one dollar, the stock having risen greatly above par. I see it stated in an Ohio paper that Franklin county lately sold her stock at 30 per cent. above par, without ever

having paid one cent. The following extract from the "Rail Road Record" shows the value of western railroad investments:

"The Cleveland Columbus road paid 28 per cent. dividends in 23 months. The Michigan Southern made dividends of 17 per cent. in one year. The Little Miami made 11 per cent. The Xenia and Columbus made 12 per cent. The Galena and Chicago made 11 per cent."

Look at the advantages of this road connecting the seaboard with the city of Pittsburgh, and thence drawing, by a dozen tributaries, business of every kind, from every point of the far west, and being the best, nearest and safest line across the mountains, must at all times command business to the full extent of its capacity. This is a matter of great importance to your citizens, and I am glad to see that their attention has been called to it by your worthy Mayor.

## FINANCIAL CONDITION OF THE MICHIGAN CENTRAL RAILROAD.

The length of the Michigan Central Railroad from Detroit to its junction with the Illinois Central, is two hundred and sixty-nine miles, and its cost, including the station grounds and buildings in Chicago, has been \$10,300,147; besides which the company has in steamboats, \$353,880; in stock and bonds of the New Albany and Salem Railroad, \$599,763; and in construction bonds of the Illinois Central, \$800,000. Since the last annual report, the New Albany and Salem Railroad has been opened its whole length, two hundred and eighty-eight miles from Michigan city to the Ohio river. The earnings of the three months of March, April, and May, 1855, already show an aggregate gain of \$231,433 over the same months of the year 1854.

The financial condition of the company on the first of June, 1855, was as follows:

To capital stock.....	\$6,021,916
To bond account:	
6 per cent St. Bds unconvertible....	\$467,613
8 per cent St. Bds, convertible.....	500,000
8 per cent Bonds, unconvertible.....	1,442,450
8 per cent Bonds, convertible.....	3,188,600
	5,598,063
To income account, balance.....	236,737
To bills payable and receivable, balance....	315,222
Total.....	\$12,163,919
Construction No. 1, purchase of road.....	2,000,000
Construction No. 2, expenditures since purchase.....	8,300,147
Cash on hand.....	11,331
Assets to hands of local Treasurer.....	51,264
Assets in hands of Superintendent.....	57,332
New Albany and Salem Railroad Co. Stocks and Bonds.....	599,763
Illinois Central Railroad Company Bonds....	800,000
Steamboats.....	353,880
Total.....	\$12,163,919

Of the debt, \$5,130,450 bears eight per cent. interest, which is a serious drain upon the earnings. The number of passengers carried during the year has been 503,774; the quantity of freight 241,825 tons; and the earnings per mile, \$1.71. The net receipts, after deducting the operating expenses, have been \$938,501, which has been disposed of as follows:—Interest and coupon account, \$360,903; dividend, 6 per cent., \$340,860—leaving a surplus on hand of \$236,737.

The increase of gross earnings has been forty per cent., and of operating expenses forty-eight per cent; the latter being the result of several causes—the accumulation of a large stock of fuel, the high price of labor and materials, the expenses of agencies in the East and West, and the fact that the realized rates of fare and freight in 1854 were much below a just price.



## Miscellaneous and Mechanical.

### THE MONARCH OF THE DEEP—THE GREAT IRON STEAMSHIP.

We have already alluded to the great iron steamer now in process of construction on the banks of the Thames. A fuller description however, has just reached us, and we proceed to condense some of the most interesting details. The tonnage of the leviathan will be 22,500, and she will be capable of carrying 12,500 passengers. She was designed by the celebrated engineer of the Thames Tunnel, Mr. Brunel, and is destined for the Australian trade. It is expected that this monster will be ready to be launched at the end of the present year. She will be launched on a novel plan, being let down sideways into the water. She is built in numerous compartments, and has a hollow space between the outside and inside walls, so to speak, throughout.

The following particulars copied from the Liverpool Courier and a report by Mr. Brunel will be read with interest:

The principal dimensions of the ship, her capacity, and power, are as follows:

Length, feet.....	680
Breadth.....	83
Depth from deck to keel.....	60
Length of principal saloons.....	490
Height of ".....	15
Number of decks.....	4
Tonnage, tons.....	22,500
Carries of coal and cargo.....	18,000
Noninal horses, power.....	{ Screw, 1,600 horses
	{ Paddle, 1,000 "
Cylinders for paddle engines.....	4
Diameter of cylinders in inches.....	74
Length of stroke.....	14 feet 6 in.
Draft of water (loaded) feet.....	28
" (light).....	20
Carries of first class passengers.....	600
" second class.....	1,800
" troops, with field equipments.....	10,000
Weight of iron used in construction of ship.....	10,000 tons

Mr. Brunel, in his report, speaks first of all of the mode of launching the ship, a subject of great importance, considering the dimensions and weight of the vessel, and the narrow and shallow river in which she is to make her first acquaintance with the waters of the sea. The intelligent and well expressed conclusions of Mr. Brunel as to the mode of launching are thus stated:

"One of the first points to be decided, was the mode of launching the vessel, which of course would determine the position in which it was to be built, and I wish to take this opportunity of explaining my reason for adopting the plan I have decided upon, which, being unusual, might be supposed to be unnecessary.

"Vessels are generally built above the level of high water, and then allowed to slide down an inclined plane into the water; occasionally, as in the case of the Great Britain, they are built in a dry dock, into which the water is afterwards admitted, and they are floated out.

"Both plans were well considered in the present case; but the size of the dock required, the difficulty of finding a proper site for such a dock, the depth required for floating a ship with her engines and boilers, which it was most desirable to introduce while building the hull, and the depth of channel required to communicate between such a dock and the deep water of the river—all combined, to render the dock plan a very expensive, and considering the nature of the soil in which it would have to be formed, a somewhat hazardous proceeding. Launching seemed to offer the fewest difficulties and the greatest certainty; but the dimensions of the vessel required some modifications of the usual modes of proceeding.

"Launching is generally effected by building the ship on an inclined plane, which experience has determined should be an inclination of about 1 in 12 to 1 in 15, the keel of of the ship being laid at that angle, and the head consequently raised above the stern, say 1-15th of the whole length of the ship. In the present case, this would have involved raising the fore part of the keel or the fore foot about forty feet in the air, and the fore castle would have been nearly 100 feet from the ground; the whole vessel would have been on an average 21 feet higher than if built on an even keel.

"The inconvenience and cost of building at such a great height above ground may be easily imagined, but another difficulty presented itself, which almost amounted to an impossibility, and which has been sensibly felt with the larger vessels hitherto launched, and will, probably, ere long, prevent launching longitudinally, vessels of great length. The angle required for the inclined plane to insure the vessel moving by gravity, being, say 1 in 14, or even if diminished by improved construction in ways to 1 in 25, is such, that the end first immersed would become waterborne, or would require a very great depth of water before the fore part of the ship would even reach the water's edge. Vessels of 450 or 500 feet in length would be difficult to launch in the Thames, unless kept as light as possible, but our ships could not be launched, the keel of the sternpost being required to be, as I before said, about 40 feet below the level of the fore foot, some mitigation of the difficulty might be obtained by an improved construction of the ways; but the great length of way to be carried out into the river, would, under any circumstances, be a serious difficulty.

"These considerations led me to examine into the practicability of launching or lowering the vessel sideways; and I found that such a mode would be attended with every advantage; and, so far as I can see, it involves no countervailing disadvantages. This plan has been accordingly determined upon, and the vessel is building parallel to the river, and in such a position as to admit of the easy construction of an inclined plane at the proper angle down to low water-mark.

"In constructing the foundation of the floor on which the ship is being built, provision is made at two points to insure sufficient strength to bear the whole weight of the ship when completed. At these two points, when the launching has to be effected, two cradles will be introduced, and the whole will probably be lowered down gradually to low water-mark; whence on the ensuing tide, the vessel will be floated off. The operation may thus be performed as slowly as may be found convenient; or if, upon further consideration, more rapid launching should be thought preferable it may be adopted."

The next point to be considered is the progress of the work. The Great Eastern is not a mere theory, but an actual fact. The work is really and rapidly progressing, and should no unforeseen obstacles arise, it is expected that the ship will be launched before next Christmas. A deal of time was necessarily expended in making suitable preparations for the work, and erecting the machinery in the builder's-yard for shaping, punching, planing, and cutting the plates, and for bringing so large an undertaking into working order.—The first plate was laid in May last, and at the present time 500 men are at work upon the ship in all departments. Unlike other

vessels, the keel of which are laid and framing erected therefrom and plated over, the "Great Eastern" is building in sections, the mid-ship section being first built up to its full altitude, and the iron decks laid, and the other sections, fore and aft, being successively built in like manner, and joined to the preceding section. A number of these sections are built, the model of the stern port is erected, and the riband, or outline of the after part of the ship, is already put up.

In her external appearance, drawing the inference from the working model, we should say the Great Eastern will be a slightly ship. She is moulded with very fine lines forward and aft, and she will have an elliptical stern.

The proprietors consist of the members of a Company, who have a capital of \$6,000,000, with authority to increase it to \$10,000,000. Her name is to be the "Great Eastern," and she will have five masts, paddle wheels, and a screw. When completed, she will be the greatest specimen of naval architecture that the world has ever seen.

### The Gold Mines on the Arkansas River.

LETTER FROM A MINER.

EDITOR TRUE DEMOCRAT:—Permit me to place in your columns a true and correct statement of the new gold mines on the Red Fork of the Arkansas River.

Three others and myself started from Green county, in Missouri, on the 18th day of April, 1855, and reached the gold diggings on the 4th of May. Our first business was to find if the gold was there as had been represented. On the first day after our arrival we came to a branch, and found, on examining the bed, that it contained a vast quantity of the precious metal. We had brought nothing with us but frying pans; but even with these, on washing out the first panfull, we obtained \$3 75 worth of the gold dust. We stopped here several days, averaging from \$75 to \$150 per day. We could have made more than we did, but we had nothing to dig with. We then proceeded to a spring, which is the place where the gold is said to have been first discovered. Here we found that the water, boiling up out of the ground, contained some small lumps of gold and a large quantity of dust.

I went out to California in 1849, at the time gold was found in the greatest abundance, and this beats California a long ways. I have no doubt that if a man had the right kind of a gold rocker, he could get gold here as fast as he could count it. We have been here about a month, and have made about \$3,500 each. There are about three thousand people in the different mines, and more coming in every day. There are so many here that provisions are high; beef 8 to 10 cents per pound, flour \$20 per barrel.

Some have returned home for the purpose of selling out and bringing their families here. The soil is good. The greatest difficulty is the want of water. If it was not for that, this would be a good farming country. The valleys are tolerably extensive and good land.

INDIANAPOLIS and CINCINNATI R. R.—This Company have just completed the laying down of the third rail from Lawrenceburg to Cincinnati, and have now an unbroken gauge the whole length of their line. Their gauge is the same as that of the roads running to Chicago, Galena and Rock Island. Hence Cincinnati has now an unbroken connection with the whole north-west.



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHARES.	OFF'D.	ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1875.....	7 1872					
Baltimore and Ohio.....	Transferable. Taxed.....	6 1885		79½	100	44	44
Do do.....	Coupons. Not Taxed.....	6 1875					
Do do.....	" ".....	6 1880					
Do do.....	" ".....	7 1860					
Do do.....	" ".....	6 1885					
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866		98	50	45	
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866					
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870		98 99		96½	100
Chicago and Mississippi.....	1st " ".....	7 1862					
Do do.....	2d " ".....	7 1874		65			
Chicago and Aurora.....	1st " ".....	7 1866					
Cincinnati, Newcastle and Mich.....	Real Estate.....						
Cleveland, Columbus, and Cincinnati.....	1st mortgage, convertible.....	7 1859			100	100½	110
Do do do.....	No mortgage, convertible.....	7 1855					
Cleveland and Mahoning.....	1st mortgage.....	7 1861			100		
Cleveland, Painesville, and Ashtabula.....	2d " not convertible.....	7 1861					
Do do do.....	1st " convertible.....	7 1860				63	64
Cleveland and Pittsburgh.....	1st " 2d sec. convertible.....	7 1873					
Cleveland and Toledo.....	1st mort. not conv. '73.....	7 1863		93 94	50	91½	93
Cleveland, Zanesville, and Cincinnati.....	1st mortgage " till 1855.....	7 1867				81½	82
Cincinnati, Hamilton and Dayton.....	2d mortgage.....	7 1860		85½ 88			
Cincinnati, New Castle and Michigan.....	1st mortgage, real estate, conv.....	10 5 & 10 y's		27 30			
Cincinnati Western.....	" ".....	8		44½		12½	14
Cincinnati, Wilmington and Zanesville.....	2d " ".....	7		70 71		40	45
Cincinnati, Indianapolis and Chicago.....	Real Estate.....	8 1859		40		10½	15
Cincinnati and Chicago.....	1st mortgage, convertible.....	7 1862		75 76			
Columbus, Piqua and Indiana.....	2d " ".....	7		60 61			
Do do do.....	1st mortgage, convertible.....	7 1859		80		90	100
Columbus and Xenia.....	2d " " till 1862.....	7 1863		60 65	50	30	31
Covington and Lexington.....	Income.....	10		70 75	50	20	22
Do do.....	1st " ".....	7 1847			50	20	21
Dayton and Michigan.....	1st " ".....	7 1862					
Dayton and Western.....	1st " ".....	7 1864		26 30			
Dayton, Xenia and Belpre.....	1st mortgage.....	7 1862		00	25	50	51
Eaton and Hamilton.....	1st mort. guaranty Mich. S. R. R.....	7 1863					
Erie and Kalamazoo.....	1st mortgage.....	7		80 81		15½	14
Evansville and Crawfordsville.....							
Fort Wayne and Southern.....							
Franklin and Warren.....							
Galeana and Chicago Union.....	Pledge of second section, convertible.....	10 1853-6		92½	100	110	111
Hillsboro and Cincinnati.....	1st mort.....	7		55 60	50	22½	25
Illinois Central.....	1st mortgage, not convertible.....	6 1875		86 87	100	95	100
Do do.....	Freeland.....			85 86			
Indiana Central.....	1st mortgage, convertible.....	7 1866		65½ 75	50	50	52
Do do.....	" ".....	10 1857		80	50	50	50
Indianapolis and Bellefontaine.....	1st " ".....	7 1860-1		75	25	50	50
Indianapolis and Cincinnati.....	2d mortgage.....	7		80 82	50	68	69
Indianapolis and Lafayette.....	" ".....	7 1861			50		
Jeffersonville.....	1st " not.....	7 1861				36	
Junction (Ohio).....	1st " ".....	7 1867			50	11	15
La Crosse and Milwaukee.....	Real Estate.....	10		72 73		12½	
Little Miami.....	1st mortgage, not convertible.....	8 1864		77 82	100		
Do do.....	" " till 1855.....	6 1863			50	98	101
Louisville and Ashville.....	" " unconvertible.....	7 1861		9	100		
Lyons', Iowa, Central.....	1st mortgage, convertible.....	7 1873					
Mad River and Lake Erie.....	1st mortgage, convertible till 1855.....	7 1855-6		75	50	35	36
Do do.....	2d " ".....	7 1866		75			
Do do.....	Dividend.....	7 1860		75			
Madison and Indianapolis.....	1st mortgage, convertible after 1853.....	6 1861			50		
Marietta and Cincinnati.....	Domestic Bonds.....	7 1868		57½ 60	50	27½	30
Do do.....	2d " ".....				50		
Hillsboro and Cincinnati.....	1st " ".....				50		
Maysville and Big Sandy.....							
Maysville and Lexington.....	1st mortgage, convertible.....	6 1873			50		
Memphis and Charleston.....	No mortgage, convertible.....	8 1860		97		103	104
Michigan Central.....	" " ".....	8 1855-6					
Do do.....	" " ".....	8 1857-8					
Michigan Southern.....	1st " " ".....	7 1860-90		100		104½	105
Milwaukee and Mississippi.....	1st " " " 1857.....	8 1862					
Mobile and Ohio.....	1st mortgage 6s, 1884.....						
Nashville and Chattanooga.....	mortgage on 1st section.....	10 1858-62			50	15	20
New Albany and Salem.....	1st " on other section, convert.....	8 1864-75					
New Castle and Richmond.....	1st " convertible.....	6 1873					
New York Central.....	" ".....			102½ 104		102	103
New York and Erie.....	1st mortgage, not convertible.....	7 1867			100	52½	54
Do do.....	2d " convertible.....	7 1871		86½ 87			
Do do.....	" ".....	7 1853		95 95			
Northern Cross, Ill.....	1st mortgage, convertible.....	8 1873					
Northern, Indiana.....	1st " not convertible.....	7 1861		79		97	98
Do do.....	1st " Goshen line.....	7 1868		90 91			
Do do.....	Construction Bonds.....						
Ohio Central.....	1st mortgage, convertible.....	7 1861		61		45	46
Ohio and Mississippi.....	2d " ".....	7 1860		50 52	50	16½	20
Ohio and Indiana.....	1st " ".....	7 1867					
Ohio and Pennsylvania.....	" ".....	7 1865			50		
Do do.....	Income. No mortgage, convertible.....	7 1872					
Pacific, Mo.....							
Panama.....	1st mortgage, convertible.....	7 1866		101½ 105		101	101
Parkersburg (or Northwestern Va.).....	" Guar. City of Baltimore.....	7 1873					
Pennsylvania.....	1st mortgage, convertible till 1860.....	6 1880			50	43½	49
Peru and Indianapolis.....	1st " ".....	7			25	30	31
Rock River Valley Union.....	1st " ".....	7 1872			50		
Sandusky and Mansfield.....	1st " ".....	7 1860					
Do do.....	2d " ".....	10 1857-7					
Scioto and Hocking Valley.....	1st " income.....	7 1861		50 51	50	50	51
Southwestern, Tennessee.....							
Springfield and Columbus.....	1st mortgage, convertible.....	7 1865					
Steuheville and Indiana.....	1st " ".....	8 1865		92½ 94			
Terre Haute and Alton.....	2d " ".....	6 1866		89 90			
Do do.....	1st " ".....	7 1863		87 88	50		
Do do.....	2d " ".....						
Do do.....	Guar. of C. C. & C.....	1883					



## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D
U. S. Loan.....	6	1865	105	105
Do.....	6	1862	112 1/2	112
Do.....	6	1867	119 3/4	120
Do.....	6	1868	119 3/4	120
Do (Int. ceased July 1) 3		1853		102
Do Coupons.....	6	1862		118
Do.....	6	1867		118
Do.....		1853		101

## STATE.

Alabama.....	5			
California.....	6	1870	90	92
Arkansas.....	6			90
Georgia.....	6		90	95
Do.....	7			
Illinois Canal Bonds.....	6	1860		
Do do registered.....	6	1860		
Do do.....	6	1847		
Do do registered.....	6	1847		
Do do Internal Imp't.....	6	1847	94	95
Do Interest do.....	5		64	64
Indiana.....	5		85 1/2	87
Do.....	5 1/2		53	54
Do Canal Loan.....	6			
Do do preferred.....	6			
Do do.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do do 16 years.....	6		102	
Do large bonds.....	6	1869-72	97	
Do.....	5			
Louisiana.....	6		95	96
Michigan.....	6		97	98
Missouri.....	6		93 1/4	93
New York.....	6	1860-61	109	110
North Carolina.....	6		97 1/2	100
Ohio.....	6	1836	101	
Do.....	6	1860	104 3/4	105
Do.....	6	1875	111	112
Do.....	5	1865	112	113
Pennsylvania.....	6			
Do.....	5	1870	97	98
Tennessee, long loan.....	6	1890	99 3/4	98
Do Coupons.....	5		82	83
Virginia Coupons.....	6	1886	99	101

## CITY SECURITIES.

Albany.....	6	1871-91	99 1/2	
Allegheny.....	6	1875-7	80	
Baltimore.....	6	1870-90	96 1/2	97
Do.....	5	1855		
Boston Bonds.....	4 1/2	1860		
Chicago.....	6	1873-7	92 1/2	95
Cleveland.....	6	1879	103 1/2	105
Cincinnati.....	6	1866-92	96	96 1/2
Do.....	6	1897		
Do.....	5	1884		
Do W. W.....	6	1865		
Covington.....	6	1857	75	77
Jeffersonville.....	6	1890	70	
Louisville.....	6	1880	84	89
Memphis.....	6	1882	72 1/2	
New York.....	7	1857	100 1/2	
Do.....	5	1858-60	95	99
Do.....	5	1870-5	97	100
Do.....	5	1890		
Philadelphia.....	6	1876-90	92	93
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1883		
Racine.....	7	1873	61 1/2	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1873	75	76

## COUNTY BONDS.

Bourbon, Ky.....	6	1881		
Darke, O.....	7			
Fairfield, O.....	7	1862		
Fayette, Ky.....	6	1861-3	75	75
Hancock Co., Ky.....	7		70	75
Mason, Ky.....	6	1881	69	66 1/2
McCracken Co., Ky., endorsed by New Orleans and Ohio R. R.				
St. Louis.....	6	1866	80	85
Do.....	7	1871		

## BANKS.

American Exchange Bank, N. Y.....	105 1/2	
Ohio Life Insurance and Trust Co.....	109	103
Washington Insurance Co.....	84	85
City Insurance.....	84	
Cincinnati Insurance Co.....	84	
National Insurance.....	75	80
Bank of Kentucky and Branches.....		
Northern and Branches.....	100	
Southern and Branches.....		
Bank of Louisville.....	93	
Kentucky Trust Co.....		
Farmers' Bank of Kentucky.....	103	108
Commercial Bank of Kentucky.....		

## INDIANA.

State Bank and Branches.....		
State Bank and Branches.....		
Union.....		
Planters.....		

## LAND WARRANTS.

160 acre warrants.....	176	Ask'd.
80 acre warrants.....	88	
40 acre warrants.....	41	

## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	1/2	3/4
Boston.....	Sight.....	1/2	3/4
Philadelphia.....	Sight.....	1/2	3/4
Baltimore.....	Sight.....	1/2	3/4
New Orleans.....	Sight.....	1/2	3/4
England.....	Sight.....	110	110 1/2

## SPECIE.

California clean, 1/2 oz.....	\$17 60	@	\$17 63
Spanish Doubloons.....	16 75	@	16 75
Patriot Doubloons.....	15 75	@	15 80
Sovereigns.....	4 85	@	4 87
Guineas.....	5 00	@	5 00
American, new.....	1 00	@	1 00
American, old.....	1 06	@	1 06
Portuguese.....	1 00	@	1 00 1/2

## SILVER.

American Dollars.....	1 04	@	1 04
American Halves.....	1 04	@	1 04 1/2
Spanish Dollars.....	1 12	@	1 13
Spanish Quarters.....	1 00	@	1 01
Mexican Dollars.....	1 05 1/2	@	1 06
Five Franc pieces.....	97 1/2	@	98

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending July 18, 1855.

\$2,000 Cov. & Lex. R. R. Co., 2d Mort. 7 per cent. Bonds.....	60	(& int.)
3,000 Cov. & Lex. R. R. Co., 2d Mort. 7 per cent. Bonds.....	62 1/2	"
5,000 City of Cov. 6 per cent. Bonds, due 1st Sept. 1857.....	80	"
2,000 Cov. & Lexington R. R. Co., 6 per cent. Income Bonds, due in 1860.....	50	"
600 Indianapolis & Cin. R. R. Co., 7 per cent. Div. Bonds.....	69	"
1,500 Little Miami R. R. Co., Div. Scrip.....	92	"
5,000 Ohio & Miss. R. R. Co., 2d Mort. 7 per cent. Bonds.....	50	"
100 Shs. Cin. & Chicago R. R. Stock.....	10 1/2	"
50 " Dayton & Western ".....	20	"
84 " Marietta & Cin. ".....	27 1/2	"
106 " Indianapolis & Cin. ".....	68	"
20 " Little Miami ".....	98	"
25 " Columbus & Xenia ".....	90	"
5 " Cin., Un' & Ft. Way. ".....	10	(& int.)
20 " Cincinnati & Chicago ".....	10	"
100 " Cin. & Western ".....	12 1/2	"
180 " Cin., Ham. & Day. ".....	81 1/2	"
16 " Cov. & Lexington ".....	20	"
80 " Indiana Central ".....	50	"
200 " Cin., Har. & Ind. ".....	8	(& int.)
375 " Ohio & Mississippi ".....	17	"
40 " ".....	16 1/2	"
122 " ".....	16 1/2	"
157 " ".....	15	"
119 " ".....	14 1/2	"

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAITE, STOCK BROKER, LON.

June 22d, 1855.

Cleveland and Pittsburgh, 1st Mort. 1850.....	@	80
Eric, 3d Mortgage, 1883.....	87	" 8
" Sinking Fund.....	83	" 84
Grand Trunk (Canada) Debenture.....	94	" 96
Great Western " conv.....	110	" 115
" " non-conv.....	104	" 105
Illinois Central, 1st Mort., 7s.....	74	" 75
" " 6s.....	72	" 74
Marietta and Cincinnati, 1st Mort.....	77	" 82
Michigan Central, conv., 8s.....	91	" 93
N. York Central, No Mort. Not conv.....	81	" 83
" " conv.....	93	" 95
Ohio and Mississippi, 1st Mort.....	82	" 88
Ohio and Pennsylvania, Income 1872.....	84	" 86
Pennsylvania, 1st Mort., conv.....	90 1/2	" 91 1/2
" " Sterling, 2d Mort.....	91 1/2	" 92 1/2
Steubenville and Ind., 2d Mort.....	88	" 90

## Monetary and Commercial.

The week past has been if anything a little duller than the previous one. Our merchants mostly taking it for granted that the hot weather has set in, and are disposed to take matters as coolly as possible. Money is plenty and easily obtained on good paper at our previous quotations.

In Eastern Exchange there is but little doing, as the purchases at the east for the last six months have been

very light, as also are our credit accounts. The supply and demand are about equal, indicating a healthy relation of our trade with our eastern neighbors, and that while our credits at the east are exceedingly small, our debts are equally limited.

Money at the east continues plenty, and rates are necessarily low. Call loans are freely made at from 4 to 6 per cent., and discounts on prime paper are made at 3 1/2 @ 7, however 6 is the ruling figure.

Imports at N. York for last week are somewhat large, but bear no comparison in amount to the corresponding week of last year, as will be perceived from the following table:

	1854.	1855.
Dry Goods.....	\$2,441,750	\$1,219,897
General Merchandise.....	2,469,301	1,841,449
Total.....	\$4,911,051	\$3,061,346
Previous 27 weeks.....	34,531,027	27,696,946
Total since Jan. 1.....	\$99,442,058	\$70,754,192

A corresponding decrease is also to be observed in the exports:

	1854.	1855.
From Jan 1 to July 3.....	\$76,470,64	\$33,416,806
Week ending July 10.....	1,401,549	882,68
Total from Jan. 1.....	\$77,872,033	\$34,298,874

The character of the leading articles of export, and their value may be seen from the following tables:

## FOR THE WEEK ENDING JULY 12.

	1854.		1855.	
	Am't.	Value.	Am't.	Value.
Cotton, bales.....	10,363	\$147,989	4,665	\$30,104
Flour, bbls.....	32,210	249,030	5,537	53,163
Corn Me l, bbls.....	9 0	3,811	1,603	13,221
Wheat, bus.....	31,536	53,442		
Corn, l us.....	33,433	28,579	180,163	184,007
Beef, bbls and tcs...	1,308	22,255	113	1,496
Pork, do	1,858	25,961	1,027	19,477
		831,087		501,618

Decrease of week as compared with 1854.....\$29,449

## FROM JAN. 1 TO JULY 12.

	1854.	1855.	Inc.	Dec.
Cotton.....	9,170,463	6,279,961		2,890,502
Flour.....	5,184,880	2,175,572		3,009,308
Corn Meal.....	213,348	200,478		2,870
Wheat.....	2,767,332	71,502		2,695,830
Corn.....	2,918,607	2,126,292		92,385
Beef.....	684,037	289,010	204,973	
Pork.....	758,834	1,850,832	91,993	

\$0,884,001 13,593,577 206,971 8,591,395  
Net decrease to July 5, 1855.....7,294,424

The following will show the exports of specie to be greater than any of the three preceding years. The exports for the last week were 1,232,907

Total since January 1st.....	18,268,262
Same time 1854.....	17,547,797
Same time 1853.....	10,945,405
Same time 1852.....	13,787,718

New Flour is beginning to come forward, but as yet in small quantities. This enables holders to maintain previous prices, and hence transactions are very limited. In the course of two or three weeks the supplies will come in more freely, when we may expect some change in prices. The quality of the new crop is excellent as well as being abundant.

The weather has been remarkably favorable for every kind of crop. Wheat is about all secured. Oats are now being gathered, and are an extraordinary yield.

Potatoes are of first quality, and the yield is large. Corn is very promising, and it is thought cannot possibly fail of an abundant harvest.

## SALES AT THE NEW YORK STOCK BOARD, July 14.

\$2,500 N. Y. 5's '58.....	105
2,000 Ind. 5's.....	85 1/2
9,000 Tennessee 6's '90.....	97 1/2
1,000 Virginia 6's.....	98 1/2
5,000 Louisiana 6's.....	98 1/2
10,000 Missouri 6's '60.....	95 1/2
1,000 N. Y. Central 7's.....	102 1/2
73,000 Illinois Central Railroad Bonds.....	86
5,000 Ill. Int. Imp. Stock '47.....	103
100 Shares New York Central.....	101
120 " Erie.....	52 1/2
100 " Harlem R. R.....	28 1/2
550 " Reading.....	95 1/2
100 " Hudson River.....	41 1/2
15 " Mich. So. & Nor. Ind.....	104 1/2
270 " Cleveland & Toledo.....	91 1/2
25 " Wis. & Lake Shore.....	85



**IRON MOUNTAIN R. R.—THE IRON PURCHASED.**

We are extremely gratified in being able to state that the Hon. Luther M. Kennett, President of the St. Louis and Iron Mountain Railroad Company, has made a contract with Messrs. Wood, Morrell and Co., of the Cambria Works, at Johnstown, Pennsylvania, for five thousand tons of rails, to be manufactured at their Works, and delivered on the line of the road in Missouri, between the 1st December, 1855, and 1st of July, 1856. This rail is to weigh sixty-two pounds to the yard, and the quantity contracted for is sufficient for the entire road to the Pilot Knob. The Works at which the iron is to be manufactured are among the most extensive in the United States; the parties in interest are in every way responsible, and knowing the quality of material, perfection of machinery and skill of the workmen engaged, we expect the iron to be of very superior quality.

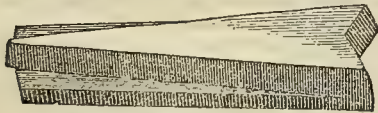
The rates at which this purchase was made are advantageous to the Company; and at a meeting of the Board of Directors yesterday, the contract was unanimously ratified.

We understand that the work on the road is so far advanced and going on so well, that if no unexpected circumstance interfere, the entire line will probably be opened before the 1st of January, 1857.

It will be gratifying to the numerous Pennsylvanians in the West, to learn that the old Iron State is thus to furnish the track to the unequalled deposits of the New Iron State. But we would not promise them a contract three years hence. By that time we trust Missouri will at least make her own rails, and perhaps furnish other States. But, for the present, we delight in knowing that we shall get a better rail, and on as good terms from Pennsylvania, as could have been gotten from England.

CLEVELAND, PAINESVILLE AND ASHTABULA RAILROAD. The receipts of this Road for the month of June, were \$62,000.

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,****Lathe Mandrels, Gauges**

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Becker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**CINCINNATI STOCK SALES.**

HEWSON & HOLMES,

Have constantly on hand and for sale at the Stock Board, Merchant's Exchange, and at private sale, Railroad, Bank, and Insurance Stock, and Railroad Bonds.

Regular sales at Stock Board on Wednesday and Saturday of each week.

**FOR SALE.**

Bellefontaine and Indiana Railroad Stock.  
Central Ohio Railroad Stock.  
Cincinnati, Hamilton and Dayton Railroad Stock.  
Cincinnati and Chicago Railroad Stock.  
Cincinnati, Wilmington & Zanesville Stock.  
Columbus, Piquette & Indiana Stock and Bonds.  
Columbus & Xenia Stock.  
Covington & Lexington Stock and Bonds.  
Eaton & Hamilton Stock.  
Fort Wayne & Southern Stock.  
Greenville & Miami Stock.  
Hillsboro' & Cincinnati Stock.  
Indiana Central Stock.  
Indianapolis & Cincinnati Stock.  
Junction (Indiana) Stock.  
Little Miami Stock.  
Mad River & Lake Erie Stock.  
Madison, Indianapolis & Peru Stock.  
Marietta & Cincinnati Stock.  
New Albany & Salem Stock.  
Ohio & Mississippi Stock.  
Peru & Indianapolis Stock.  
Springfield, Mt. Vernon & Pittsburgh Stock.  
quantities varying from 10 and upward.

HEWSON & HOLMES,

83 & 85 Walnut Street.

dec27



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,

North East Corner Fourth and Walnut Streets, over Ohio Savings Bank,

**CINCINNATI.**

JAMES APPLEGATE,  
SAM'L. FLICKINGER.

A. H. POUNSFORD,  
JOHN B. RYAN.

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**Railroad Materials and Machinery,**

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Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enameled head and seat Linings, Plated and White Metal Letters.

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Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. j13.

**CATALOGUE OF PATENTS;**

Showing the Subject or Title of Every Patent granted by the United States Patent Office prior to the present year, and the number under each title; being a complete view of all that has hitherto been done in the whole field of invention. Price 25 cents. For sale only by the Author. Copies sent by mail Address,

J. S. BROWN,  
Washington, D. C.

**NOTICE TO CONTRACTORS.**—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Obion (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburgh and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

The letting at Nashville will be postponed until Saturday, August eleventh.

may 17-4t.

[Railroad Journal please copy.]

BECKER & RUST,  
General Contractors.

**"GARDNER'S ROCK DRILL."**

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.

A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

nov17+

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We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

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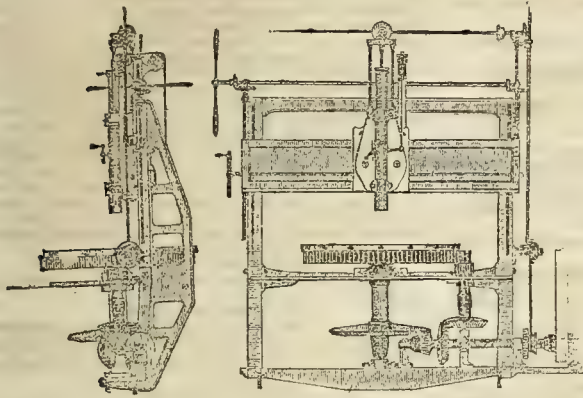
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OF VARIOUS SIZES, TO SWING

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### Mercurial Steam Gauges.

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DRAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

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Sole Manufacturers of McGowan's Double Action

### SUCTION & FORCE PUMP

AND

### STEAM PUMPING MACHINE,

WOULD respectfully invite the attention of RAILROAD Companies and the public generally to their Pump, as the best Pump now in use; they are simple in their construction, compact, durable and not likely to get out of order; we have adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes when a Pump can be used. Also, for forcing a large body of water to a great height or distance.

These Pumps are used on nearly all the principal Railroads South and West.

Silver Medal (the highest premium) awarded at the late Fair of Ohio Mechanics' Institute

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled.  
June 21, 1855-ly

### STEREOTYPE FOUNDRY,

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### STEREOTYPING,

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

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### Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

**JOHN RICE & CO.,** Patentees.

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, **J. EDGAR THOMPSON,**

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

**WILLIAM B. FOSTER, JR.,**

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENNA. R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

**H. J. LOMBAERT,** Superintendent.

ENGINEER DEPARTMENT, NORTH P. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

**EDWARD MILLER,** Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane. Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, **G. A. NICHOLS,**

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

**ROBERT ALLEN,**

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 10, 1855.

**Geo. T. PARRY, Esq.,**—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

**STRICKLAND KNEASS,** Civil Engineer.



**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patent's.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**  
**WHALEBONE AND STEEL WIRE BRUSHES.**  
**Artesian Well Tubes**  
**Screwed Flush inside & outside.**  
**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**

**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**  
**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

For warming air, boiling water and heating ovens.

**ANNULAR**  
**SURFACE CONDENSERS,**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length).

**CAST-STEEL CANNON.**  
 of any calibre.

**PATENTED CAST-STEEL TIRES,**  
**SHAFTS,**  
 For Railway Wheels. Railway Axles and Springs,

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STOP COCKS, Bibb, Flange, Valve, Gauge, and Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes, Couplings, Salt Well, and Hose Joints; Steam Whistles, Distillery Work, General Brasses, Anti Friction Metal, Spelter Solder, and Copper Rivets.

Pumps of all descriptions, Brass and Composition Castings, Dixon's best Black Lead Crucibles, Also, Dr. Ransom's Patent Constant Suction Pump for Railroad Water Stations.

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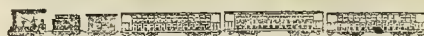
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 In Sheet or in Pocket Case;  
 The LARGE SECTIONAL and RAILWAY MAP of OHIO,  
 the LARGE MAPS of CINCINNATI, and HAMILTON CO  
 Ohio, and the TOWNSHIP MAPS of INDIANA and IOWA.  
**MAPS OF EVERY DESCRIPTION.**

**COLUMBUS, PIQUA, AND INDIANA RAIL-**  
**ROAD.**



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 2.05 and 6.55 p. m.

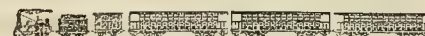
The 4.50 a. m. train, from Columbus, will connect with the Night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.25 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.40 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
 Piqua, Sept. 13, 1853. Sept. 29-1f.

**Terre Haute & Richmond R. R.**



**Summer Arrangement.**

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.20 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leave Vincennes by Stage at 3.20 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 22½ hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.  
 MAIL TRAIN leaves Terre Haute at 7.20 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.20 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.  
 May 28, 1855. S. HUETIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.**

**SUMMER ARRANGEMENT.**  
 COMMENCING MONDAY JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, T. Min. Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.20 A. M., & 6.50 P. M.  
 LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.  
 The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena & Rock Island,**  
 BY THE WAY OF THE  
**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.  
 TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

**THROUGH BY DAYLIGHT TO TERRE HAUTE,**  
**LAFAYETTE, PERU, &c.**

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.20 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis..... \$3 50  
 " Lafayette..... 50  
 " Terre Haute..... 50

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.  
 The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
 D. M. MORROW, Superintendent.  
 Feb. 8-ly



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
**Through Tickets from all Parts of the West,**  
**ARE NOW SOLD IN**

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

**AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED**

**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILA-**  
**DELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, and various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

**WM. G. HARRISON,** **JOHN H. DONE,**  
President, Mast. of Transportation,  
je. 64 Baltimore.

**The Shortest Quickest and Best  
ROUTE TO LOUISVILLE.**

MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.

**OHIO & MISSISSIPPI RAILROAD,**

**ON MONDAY, SEPTEMBER 18, AND UNTIL FURTHER**  
notice, the Passenger Trains will run as follows:

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.**  
**For Indianapolis.**

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.**

**For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 2.55 P. M., and 4.23 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M., 2.30 P. M., 4.05 P. M., and 9.30 P. M.

Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

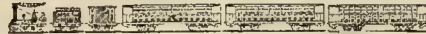
For further information see handbills, or apply at the Ticket Office, on Fourth Street, north side, four doors from Vine Street, opposite new Custom-house.

S. S. POST, Chf. Eng'r and Supt.

Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.

W. S. BABCOCK, Agent,  
Sept. 5. St. Louis and Cincinnati Omnibus Line.

**1855. New Arrangement, 1855.  
COMMENCING MONDAY, JULY 16.****LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.**

**FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M.,  
10:20 A. M., AND 6 P. M.**

*The Quickest, Shortest, and Most Direct Route, both  
to and from Cincinnati and the East.*

**LAI D WITH HEAVY T IRON.**

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

**CINCINNATI TO CLEVELAND in 8½ hours.**  
**CLEVELAND TO CINCINNATI in 8½ hours.**

**Time via Little Miami Route from Cincinnati to**

To Columbus in.....	3¾ hours.
To Cleveland in.....	8½ "
To Dunkirk in.....	14½ "
To Buffalo in.....	16 "
To Albany in.....	26 "
To New York in.....	30¾ "
To Boston in.....	35 "
To Crestline in.....	6 "
To Pittsburgh in.....	14 "
To Philadelphia in.....	30¾ "
To Wheeling in.....	10 "
To Baltimore in.....	26½ "
To Washington in.....	29 "
To Steubenville in.....	12 "

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

**FIVE DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburg, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburg, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

**SECOND TRAIN.**—Cleveland and Pittsburg Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburg; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

**THIRD TRAIN.**—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

**FOURTH TRAIN.**—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

**FIFTH TRAIN.**—Cleveland, Pittsburg and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburg, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

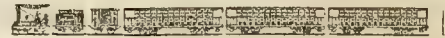
south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

**Peru, Logansport, Wabash, Rochester, and  
Indianapolis.**

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5:00 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.

Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

**OPEN to Paris.**—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.  
On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canan, Benton, Clarkston, Demosville, Butler, Irving, Falmouth, Cuthbert, Royds, Berry's, Robinson's, Garrett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8:00 next morning.

Eight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

**FOR THROUGH TICKETS,**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington. J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices  
oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago,  
and St. Louis, by Indianapolis & Cin-  
cinnati Railroad.****VIA LAWRENCEBURG,**

**IN connection with the Ohio and Mississippi Railroad.** Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and Lafayette for Chicago both morning and evening Trains, and at Chicago for South, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE, Agent.

Cincinnati, June 12, 1855.

**W. G. ATKINSON,**

**Civil Engineer, Surveyor & Draftsman.**  
CUMBERLAND, MD.

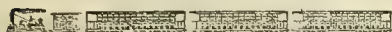
**RAILROAD** routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared. mail-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of all patterns can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNYS & PECK,  
Louisville, Ky.

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

**Norris' Locomotive Works,**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**  
Our facilities for doing work have been largely increased this year; and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**NUGENT'S COLLEGE**

OF  
**ENGINEERS & MECHANICS,**  
PUBLIC SQUARE, CLEVELAND, OHIO.  
C. NUGENT, C. E., Principal.

The design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
an. 10.

**New Works on Civil Engineering.**

THE Field Practice of Laying out Circular Curves for Railroads. By John C. Trautwine, Civil Engineer.—4th Thousand, in pocket-book form with tucks.

—ALSO—

A New Method of Calculating the Cubic Contents of Excavations and Embankments, by the aid of Tables and 10 Engraved Plates of Diagrams. By John C. Trautwine, C. E.; 2d edition.

Price, one dollar each. Postage on the Curves, five cents; on the Excavations and Embankments, eight cents. For sale by WILLIAM HAMILTON,  
Hall of the Franklin Institute,  
Philadelphia, Pa.

Sept. 21-3\*

**ENGINEERING!!**

The undersigned is prepared to furnish SPECIFICATIONS, ESTIMATES, AND PLANS, in general or detail of all kinds of

Steam Vessels, Engines, Boilers, Mill Work, &c

Particular attention given to the superintending of LOCOMOTIVES, TENDERS, CARS,

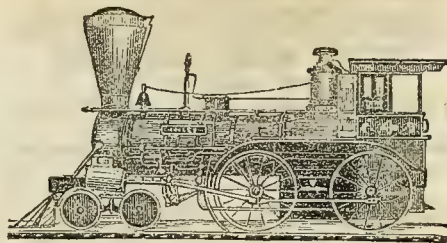
And Railway Machinery of every Description, While under construction.

AGENT FOR THE PURCHASE of, on commission, all articles required for Railroads, Steam Vessels, Locomotives, Engines, Boilers, Machinery, &c.

General Agent for  
ASHCROFT'S STEAM GAUGE, ALLEN AND NOYES' METALLIC SELF ADJUSTING CONICAL PACKING, DUDGEON'S HYDRAULIC JACK.

Also, for Water Gauges, Indicators, Steam Whistles,  
CHAS. W. COPELAND,  
Consulting Engineer,  
64 Broadway, N. Y.

Nov. 5 tf

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland St., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.**

**JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH & RACE STS.



HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors' Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. R. Record of October 20th. 1853. mar-16

**Indianapolis & Cincinnati Railroad.**

OFFICE—INDIANAPOLIS, IND.

Col. T. A. Morris,..... Pres't  
1y mar. 27.

**Indiana Central Railroad.**

OFFICE—INDIANAPOLIS, IND.

I. S. Newman,..... Pres't

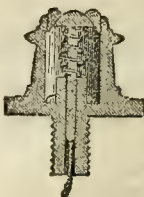
**Buffalo & Erie Railroad.**

OFFICE—BUFFALO, N. Y.

G. Palmer, Pres't. Buff. & State R. R. } C. C. Dennis.  
C. H. Reed, Pres't. Erie & North E. R. R. } Supt.,  
1y mar. 27.

**RICHARDSON'S**

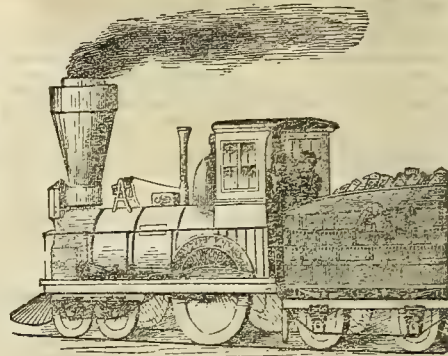
PATENT



**OIL CUPS**



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
64 Courtland St., New York.  
May 17.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap:0 MOORE & RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T & E. Wason, Springfield, Massachusetts.  
+oc:0

**Railroad Car Findings.**

BRIDGES & BROTHER,

64 Courtland Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fitted  
Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lug and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers,

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.  
+oc:0

**CAR MANUFACTORY,**

Dayton, Ohio.



THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, &c.

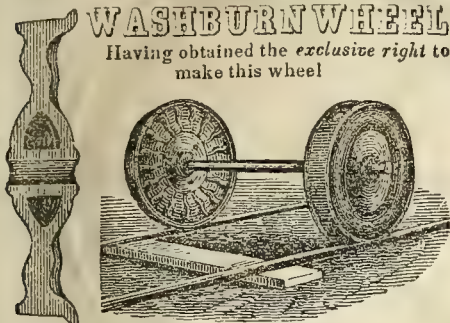
They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan. 25-†



**FULTON CAR WORKS,**

CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to, their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

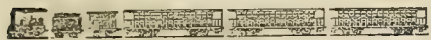


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12  
**MUSKUM WORKS,**  
ZANESVILLE, OHIO.

**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

**DAVENPORT, RUSSELL & CO.,**

**Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16th\* **JOSEPH DAVENPORT.**

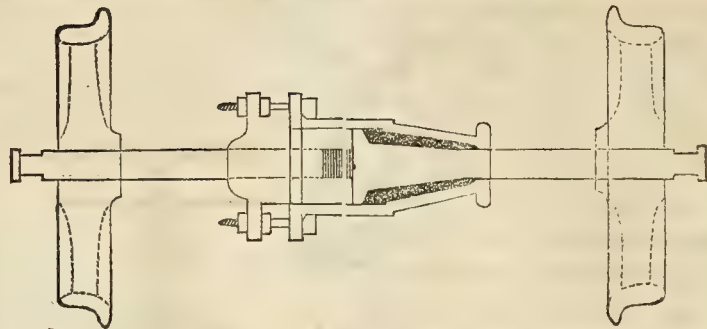
**S. C. THOMSON & CO.,**

MANUFACTURERS OF

**PATENT PAD LOCKS,**

For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,

Cor. Railroad Avenue and Market st.,  
n.12½ **NEWARK, N. J.**

**DENNEY'S DIVIDED CAR AXLE.****PATENTED JANUARY 31ST, 1854.**

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

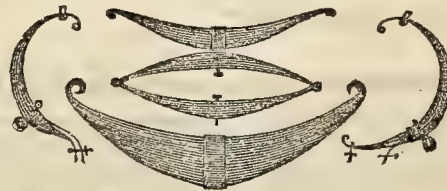
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

**MCDANIEL & HORNER,**

**LOCO- AND CAR**  
**MOTIVE SPRING**

**MANUFACTURERS, WILMINGTON, DEL.**

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**McDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

**References.**

**NORRIS BROTHERS,** Locomotive Builders, Philad.  
**A. C. GRAY,** Prest. New Castle Manuf. Co.  
**U. WELLS,** R. R. Car Manuf. Petersburg, Va.  
**I. R. TRIMBLE,** Supt. Philad. R.R. Co.  
May 19.

**M. B. MILLEN,** Gen. Supt. C. R. R. Savannah, Ga.  
**EMERSON FOOTE,** Supt. M. & W. R. R. Macon, Ga.  
**THOMAS DOUGHERTY,** Master Mach. do.  
**THOS. SHARP,** Supt. R. F. & P. R. R. Richmond, Va.

**DURYEE & FORSYTH'S**  
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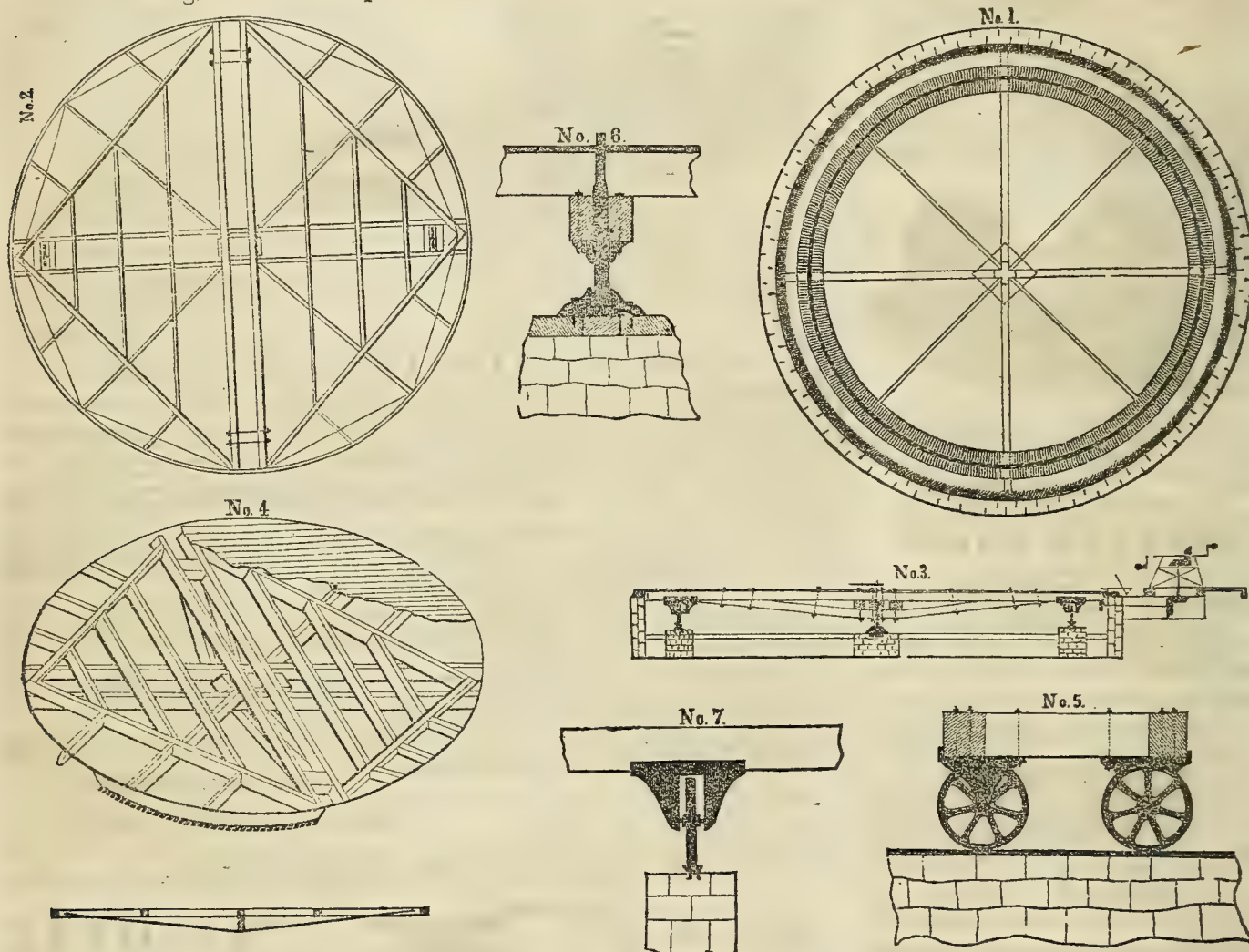
**REFERENCES.**

**Richard Norris & Son,** Locomotive Builders, Philad'a,  
**Wm. D. Lewis,** Esq. Pres't Catawissa R. R. Co. "  
**Charles H. Fisher,** Esq., "  
**Jno. Caldwell,** Esq., Pres't S.C.R.R. Co. Charleston, S.C  
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Oct. 13-th.



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## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer, Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborn, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh.  
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Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, North Carolina.  
Central North Carolina Railroad.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.  
Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1, of the above cut, represents the foundations, consisting of *Bank and Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,

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A. WETHERBEE, Proprietor.

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# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, { Associate Editors.  
J. A. JAMES, }

CINCINNATI:  
THURSDAY MORNING,.....JULY 26, 1855.

E. D. MANSFIELD,  
May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

## Railroad Record

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Office No. 167 Walnut Street,

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### OHIO AND PENNSYLVANIA RAILROAD.

The following statement shows the earnings of this road for June, and for the last six months, as compared with the corresponding period of 1854:

The earnings in June, 1855 .....	\$ 78,122 76
In the first six months of 1855 .....	507,574 57
do do 1854 .....	445,358 88
Increase (14 per cent.) .....	\$62,215 69

**DAYTON AND MICHIGAN RAILROAD.**—The *Sydney Journal* says: Work has been commenced on the Dayton and Michigan Railroad between the town and the river. A small force are at work on the hill-side, opposite the steam saw-mill. We are informed that the force will soon be increased, and the work will be pushed until completed. This looks more like really having the road here than anything else which has transpired for a long time. It will be safe now to revive all drooping spirits, live in hope, and anticipate the good results likely to ensue. Since writing the above, a procession of carts and horses passed our office, destined for the work. The sight was cheering.

VOL. III.—No. 22.

### THE GREAT ROUTE TO THE SOUTH; CINCINNATI, CUMBERLAND GAP & CHARLESTON RAILROAD.

Our readers have been informed from time to time of the various plans and efforts made in the South, to unite the Valley of the Ohio with the Southern Seaboard. In 1836, when the first great plan was laid for the Cincinnati and Charleston R. R., the whole distance from Sandusky Bay to Charleston was yet to be accomplished.

The entire distance was composed as follows:

Sandusky to Dayton .....	156 miles.
Dayton to Cincinnati .....	60 “
Cincinnati to Lexington via Paris .....	96 “
Lexington to Cumberland Gap via Richmond ..	124 “
Cumberland Gap to Ashville N. C. ....	133 “
Ashville to Columbia, S. C. ....	160 “
Columbia to Charleston .....	130 “

Aggregate .....	663 “
From Cincinnati to Charleston .....	647 “

The entire route embraced, as it is seen above, *five different States*, and the distances in each State was as follows:

In Ohio .....	216 miles,
In Kentucky .....	96 “
In Tennessee .....	100 “
In N. Carolina .....	73 “
In S. Carolina .....	250 “

Of this, the following portion is finished, viz:—

In Ohio .....	216 miles.
In Kentucky .....	96 “
In S. Carolina .....	225 “
.....	537 “

There remains to be finished:

In Kentucky .....	128 miles.
In Tennessee .....	100 “
In N. Carolina .....	73 “
In S. Carolina .....	25 “

It appears, then, that as between the Lakes and Charleston, both the Northern and the Southern portions are finished; but it is the *middle district* which has failed.

Under these circumstances, the recent movement of the *Cincinnati, Cumberland Gap and Charleston Railroad Co.*, whose proceedings we published in the last number of the *Record*, becomes of great importance.

The route selected by that Company, is the shortest between Cincinnati and Charleston, except the Robbers Gap route, which is said to vary only ten miles. At any rate, it will be a great advantage to have a railroad which shall connect N. Carolina also with Cincinnati, and this route will afford this, by way of Ashville, and the North Carolina Central. Ashville is very nearly on the straight line from Cincinnati to Charleston, and the air line distance is just five hundred miles. The following distances proposed by the Cumberland Gap Co., considering the mountainous nature of a large part of the route, are no unreasonable departure from a straight line, viz:

Cincinnati to Paris .....	78 miles.
Paris to Lexington .....	18 “
Lexington to Richmond .....	26 “
Richmond to Cumberland Gap .....	102 “
Cumberland Gap to Paint Rock .....	90 “
Paint Rock to Ashville .....	43 “
Ashville to Spartanburg .....	65 “
Spartanburg to Columbia .....	95 “
Columbia to Charleston .....	130 “
Total .....	647 “

Of this 321 miles, viz: from Cincinnati to Lexington, and from Spartanburg to Charleston, are already constructed.

Ten miles of the above distance may be saved, by making the route from Paris (instead of Lexington) to Richmond. The entire running distance from Cincinnati to Charleston, on this route, need not exceed 630 miles, and may be run in *twenty-four hours*; passing in that time, the Cumberland Mountains, the Alleghanies, the Blue Ridge, and seven great rivers, viz: the Kentucky, the Cumberland, Powell, Clinch, the Holston, the French Broad, and the Congaree! When this is done, as in a short time, it will be done, it will be the greatest railway feat, which can be accomplished this side the Rocky Mountains.

The ease, with which this work can be accomplished, is surprising. Captain Owen, the Engineer of the Cumberland Gap Road, reports that he has confined himself to an extreme grade of sixty-eight feet, and a minimum curvature of one thousand feet. With these, the whole route can be accomplished by the aid of one tunnel 2,500 feet in length, at the Notch Gap of Clinch Mountain, a little distance from Rutledge, Tenn. The great Walden Ridge of the Cumberland Mountains is passed by a natural Gap. Making the shortest combination possible through Tennessee.

Capt. Owen thinks the distance will not exceed 90½ miles, and the whole cost be about \$2,400,000. Of this sum, the State of Tennessee has appropriated for iron, and for bridges over Holston and Clinch rivers, about \$1,100,000. Allowing for some enterprise and credit in the people along the line, it will be hard if the Tennessee part of the road cannot be made.

At the meeting of the Board of Directors in June, the line was adopted from the Cumberland Gap to Tazewell, the Notch Gap, Beans Station, Morristown to Paint Rock, near the North Carolina Line. The Board also directed thirty miles of road to be put under contract, adjacent to the intersection of the Virginia and East Tennessee Railroad.

The completion of this road will accomplish for Cincinnati *two very important objects*, a continuous railroad into North Carolina, and a very good Railway connection with Norfolk, Virginia, and with the whole intermediate Valley, and in both sections of country, there will arise an immediate trade with the Valley of the Ohio, which does not now exist.

It must be recollected that the State of North Carolina has granted aid to the amount of *two-thirds the whole cost* to the North Carolina Central Railroad, thus making the construction of that work entirely certain. The N. C. Central Road has been extended to Ashville, where it will intersect the Cincinnati



nati and Cumberland Gap Road. By this route the distance from Cincinnati to Raleigh (N. C.) will be as follows :

Cincinnati to Lexington.....	96 miles.
Lexington to Cumberland Gap.....	128 "
Cumberland Gap to Ashville.....	133 "
Ashville to Morgantown.....	60 "
Morgantown to Raleigh.....	184 "
Total.....	601 "
Cincinnati to Morgantown.....	417 "

At Ashville and Morgantown the trade of Western N. Carolina in all manufactured articles and western produce *may be commanded for Cincinnati.* There is no northern city so near that section of country as Cincinnati, and no city of the South which can supply many of the articles of trade required.

By the same route complete access will be had to the entire Valley of Virginia, and to the city of Norfolk. Thus :

Cincinnati to Cumberland Gap.....	224 miles.
Cumberland Gap to Morristown.....	60 "
Morristown to Lynchburg.....	294 "
Lynchburg to Norfolk.....	199 "

Aggregate.....777 "

The distance can be run in thirty-six hours, and is the shortest route that can be formed between Cincinnati and Norfolk, till a direct railway route can be obtained.

The general consequences of the construction of the Cumberland Gap road, would be to Cincinnati the completion of *three* immense railway lines, between Cincinnati and the three greatest southern States, viz :

Cincinnati to Charleston.....	647 miles.
Cincinnati to Raleigh.....	601 "
Cincinnati to Norfolk.....	777 "

Except the first, these are, indeed, not the most direct lines possible ; but they are very far the best *practicable* ones, for to connect Cincinnati with Norfolk, or Raleigh, by straight line railroads would cost four times as much as any common railways, and is a thing not likely to be done.

We know of no railway line in America, of as much direct importance, as one which will connect Cincinnati with the Southern System of Railways. It will create more new commerce, than now exists in Kentucky and Tennessee, and will be fraught with great and numerous benefits.

#### RAILROAD REPORTS.

##### REPORT OF THE STATE ENGINEER OF THE STATE OF NEW YORK.

We promised in our previous number to give the experience of the New York railroads as to the cost of operating and maintaining the road. There were in use in New York at the date of the report, 668 locomotives on all the roads, or one locomotive to every 3½ miles of road. This proportion is of course subject to a little variation for increased business and the density of population on a route ; but we think, in general, it may be safely assumed that the general wants of railroads for some time to come, may be based upon this result.

There is one passenger or emigrant car for every 2½ miles, and one freight or baggage car for every 32-100ths of a mile. The average mileage of the passengers for each mile run by the train is 69. The distance travelled by each passenger is 39½ miles ; or excluding the Harlem road, on which the travel is principally within the city of New York, it is 51 miles. It is easy then to see the comparative importance of through and way travel, a subject not generally viewed with sufficient care by railroad managers. There is too often a disposition to cultivate through travel at the expense of the local traffic. Now a moment's consideration will show that the through business must be small compared with the local, and that as the resources of the country are developed, this proportion must continue to decrease. Managers of railroads will do well to remember this fact, and to remember also that while through traffic may add to the dividends, yet it is mainly the receipts on local business, which must pay the cost of operating the line.

The number of tons of freight moved for each mile run by the trains was 71. Each ton of freight was moved 107 miles, a much larger proportionate distance than that travelled by each passenger. The weight of freight trains, exclusive of freight, was 175 tons.

Of the tonnage moved, the following is the proportionate per cent. of each description of goods carried on nineteen different roads :

Products of the forest.....	14 per cent.
" " animals.....	15½ " "
Vegetable food.....	22 " "
Other agricultural products.....	4 " "
Manufactures.....	12 " "
Merchandise.....	12½ " "
Unclassified article.....	20 " "

The average speed of express trains, when in motion, was thirty-six miles ; that of freight trains sixteen miles per hour. The following was the average cost of the maintenance of way per mile of road :

	Passengers.	Freight.	Total.
Repairs of road bed.....	\$453 43	\$351 64	\$816 43
Iron used on do.....	88 22	140 00	277 54
Repairs of buildings.....	27 43	22 15	55 62
" of fences and gates.....	11 72	7 72	19 01
Taxes.....	64 51	54 37	114 36
	\$595 04	496 09	1,123 40

The average cost of repairs of machinery per mile of road was :

Repairs of engines.....	\$237 84	\$191 07	\$427 53
" of cars.....	145 20	206 66	359 58
Tools.....	18 59	16 48	36 42
Oil and Waste.....	37 72	28 38	65 55
Total.....	\$434 52	438 01	923 41

The average cost of operating per mile of road was :

Office and Stationery.....	\$ 25 93	\$ 25 08	\$ 50 28
Agents and Clerks.....	116 31	122 07	248 40
Labor loading and unloading.....	—	187 45	213 49
Porters, watchmen and switchmen.....	100 49	61 88	165 71
Wood and water station attendance.....	25 51	16 34	41 59

Conductors, baggage men, and brake men.....	146 39	122 34	271 72
Engine and fire men.....	140 73	122 61	263 09
Fuel cost and labor of preparing.....	395 23	202 12	732 60
Oil and waste for engines.....	49 58	30 63	89 27
" " " cars.....	33 65	31 49	65 02
Loss and damage to goods and baggage.....	5 74	40 33	46 40
Damage to persons.....	30 94	13 65	36 06
" to property and cattle.....	5 71	8 22	12 36
General superintendence.....	28 97	30 64	65 39
Contingencies.....	242 18	199 01	408 15
	\$1,294 84	1,212 90	2,648 66

The average cost of maintenance of way per mile run by the trains was for passengers 20.82 cents, freight 25.70 cents ; total 22.63.

The average cost of repairs of machinery per mile run by the trains, was for passengers 13.44 cents, freight 22.95 cents ; total 17.52 cents. The average cost of operating per mile run by the trains was, for passengers 43.06, freight 63.46 ; total 53.48.

The average cost of maintenance of way per passenger and per ton of freight carried one mile was, passengers 2.88 mills, freight 3.41 mills ; total 3.37 mills. The average cost of repairs of machinery for the same, was passengers 2.12 mills, freight 3.07 mills ; total 2.54 mills. The average cost of operating was, passengers 6 36 mills, freight 8.64 mills ; total 7.64 mills.

The average receipts per mile of road were :

Passengers.....	\$4,074 16
Freight.....	3,776 72
Other sources.....	427 28
	\$8,278 17

The expenses.....4,710 14  
or fifty-seven per cent of the whole receipts.

The average receipts per mile run by the trains were :

Passengers.....	\$1 32
Freight.....	2 02
Passengers, freight and other sources.....	1 67

Expenses.....\$0 97  
The average receipts per passenger per mile were.....1.95 cents.

Per ton of freight.....2.97 "  
Per passenger or per ton.....2.38 "  
Expenses.....1.38 "

In our next we will give the statistics of accidents.

#### EDITORIAL CORRESPONDENCE.

CUMBERLAND, July 18, 1855.

MY DEAR RECORD:—I wrote you last, flying away at the rate of forty miles an hour on the Central Ohio Railroad. That road is managed promptly and by energetic men, and as it is earning nearly \$4,000 per annum per mile now at the dull season of the year, we may reasonably expect to see its stock improve rapidly as the fall business increases. The Baltimore and Ohio Railroad connects with this road at Wheeling, and forms a magnificent line of through travel from Cincinnati to the seaboard. You will remember the difficulties which have been thrown in the way of a direct connection between this road



and the Central Ohio. The matter rests at present in statu quo. The injunction obtained by the city of Wheeling, prevents the shortest connection at Bellaire, hence the company are compelled to run their ferry boat up to the corporate limits of the town. This satisfies the letter of the law, and is not quite as much detension to the passenger as it would be to go to the centre of Wheeling.

The Baltimore and Ohio is one of the most magnificent specimens of bold and successful engineering in the world. It passes through several spurs of the Cumberland mountains, and leaps almost from crag to crag. Its work is of the most solid character. Its embankments, when necessary, are faced with heavy masonry; the blocks of stone composing the walls being several feet in length, from 10 to 15 inches in depth, and 18 to 30 inches in width. Remembering now that nearly all the stones in these embankments are of such high dimensions it is easy to conceive that the embankments must be extremely solid, and so in fact they are and need to be. The bridges on this road are either of stone with elliptical arches or of iron, of the Bollman pattern. Mr. Bollman is the Master of road and has charge of the track, bridges, tunnels, etc. His bridges stand well the running of trains and the shaking incident to it. There is a very fine specimen of this style of bridge at Zanesville, on the National Road. Another fine specimen of the Bollman bridge, is the Railroad bridge at Harper's Ferry.

The lover of the beautiful cannot help being pleased with the Baltimore and Ohio railroad. Among the mountains as he speeds his way from cliff to cliff, now passing through a deep out in the "everlasting hills" which tower above him, and now as if winged with the wind flying high on sides of the precipice and looking down from his dizzy height on the rocky gorge beneath him. But onward is his motto, and away he dashes through yonder projecting crag, almost before he has time to realize that its wild outline is directly in his path. As he emerges from the gloom, the first object that meets his eye is the dark water of the mountain stream, dashing along the gorge and gleaming fitfully through the verdure, while across the stream rising in majestic proportion, the opposite mountain lifts its green summit from the depths below away to the heights above him. But as he speeds on, he seems to have passed the craggy gorge and enters on an elevated plateau; stretching away on either side of him with easy ascent and dotted here and there with the cottage of the farmer, the scene is an agreeable contrast with the wild glen he has just passed. But sameness is not one of the characteristics of the scenery on this road, and he soon leaves this quiet plain, the miniature of the world below him, for the narrow defiles and the wild confusion of another glen,

And thus in endless variety and every varied and fantastic shape, he sees nature in her wildest forms. The Cheat river region is among the most romantic on the continent, and needs but a few traditions of border wars and early trials, to make it sacred as the glens of Germany or the hills of the Rhine.

The tunnels on this road are among the largest yet opened. That at Kingwood, including its approaches, is over a mile in length, or excluding these, seven-eighths of a mile. The company are now engaged removing the timber superstructure, and substituting a substantial arch of masonry.

At Cumberland I stopped over one train. It is a little town among the mountains and contains 6,000 or 7,000 people. Among the objects of interest here are, the coal mines, nine miles from Cumberland up a narrow gorge. The coal is brought down from the mines on a railroad, and loaded in canal boats at Cumberland. Cumberland is not a very enterprising town, but contains a few establishments worthy of note, among which that of Shriver & Bro., manufacturers of machinist's tools, is one of the largest. These gentlemen have a new establishment, and what is unusual in a machine shop, keep it clean. Their tools are of excellent quality. They make a fine lathe and do a thriving business. In common with others, they are not so busy now as they might be, but their establishment has all the appearance of thrift which belongs to enterprising men. The engine house of the Baltimore and Ohio R. R. is one the "lions" of the place, and well worth of looking at. It is polygonal in shape and each segment is finished with a steep roof and projecting ornaments making a *tout ensemble* of a rather *outré* but decidedly pretty appearance. This is the style of engine houses generally adopted on this road, and is much prettier, and not much, if any, more expensive than the ornamentless round house with elliptic dome so generally adopted at the north. Cumberland is classic ground to the American. Here is shown the site and remains of old Fort Cumberland, where Washington gathered the remains of Braddock's army, after its terrible defeat. The site of the fort is well chosen, on the brow of the hill commanding the spot where the National road crosses the river, it is a strong position. The site is occupied now in part by the Court house, and an Episcopal church. Every year is taking away from the relics of the fort, and soon nothing will remain to denote where it was but the traditions of the old inhabitants.

✂ A progress of about eight feet per day at each end is now being made on the Hoo-sich tunnel. A larger force 500 hands has been advertised for. The rock so far proves favorable, being mica slate, and is easily excavated.

#### COMPOUND RAIL.

A very good substitute for compound rail is obtained by bolting together the bars of T rail, not loosely as they are frequently laid, but close up. The object of leaving space between the ends of the rail, has been to provide against the expansion of summer heats. This, although theoretically necessary, in practice is productive of mischief. The expansion of an iron rail by any heat ever applied to it on a railroad track, is by no means as great a quantity as many tracklayers suppose it to be, and hence, it is that we find even in the hottest midsummer, large spaces between the ends of rails. These spaces act injuriously both on the rail and on the car. On the rail they are injurious because every wheel which passes strikes a blow on the end of the rail. This batters the end and loosens the spikes, and in the end makes the road rough and the riding unpleasant. On the car they act injuriously, because they create unnecessary roughness, to be evercome in wasting power and jirking the cars and engine, and adding to the wear and tear. The perfection of a railroad would be a continuous track without a joint in the rails, and the nearer we get to this, the more nearly shall we approach the maximum of economy in operation, so far as necessary wear in this respect is concerned. Lay the rails on your road as closely to each other as you can, spike them well down with the best spikes, and if you think you can afford it, bolt them together by a strap at the joints; this will give a track second only to the continuous rail, will wear longer, ride easier, and be better in every respect than the method of providing for expansion. The error in that method is, that too great an expansion is provided for. The tables are probably right; but they are based upon the total expansion of the metal at any heat, while the greatest difference of temperature is rarely more than 100 to 110 degrees Fahrenheit.

#### ONE WORD ABOUT CONDUCTORS.

How much it adds to the comfort of traveling to be placed in charge of gentlemanly, polite and attentive conductors. We have seen persons in charge of railroad trains who evidently appreciate the importance of their position. The office of a conductor is a responsible one, and they seem determined that every one should know that *they* felt it so. To travel under the direction of such a man, all dignity and self-importance, is the most unmitigated bore I know of. But I am glad to say from the experience of my present route, such instances are not frequent. I have not met a single example of starched importance, or gross impertinence on any of the roads I have travelled. It is particularly due to the conductors of the Baltimore and Ohio, and the Central Ohio Railroads, to say



that they are gentlemanly and attentive to the wants of travelers. I do not mean that outside politeness, which has a bow and a smile always ready, but that more solid sort which anticipates the wants, and prompts to little acts of attention, so acceptable to a stranger, and which makes one feel at home and cared for. It is this politeness exercised towards every one which makes these roads so comfortable to travel on.

## Railroads.

### THIRD ANNUAL REPORT OF THE ATLANTIC AND GREAT WESTERN RAILROAD CO.

This is the Broad Gauge road, which extends from the Pennsylvania Line to Dayton, and is in all 243 miles in length. It passes through Warren, Akron, Crestline, and Urbana. From the Report of the Directors, we perceive that a large part of the road has been put under contract on favorable terms, and considerable work done. The President and Directors think they can finish it in reasonable time, and that it will be a work of great profit. The great object is to connect the great eastern roads, directly with the net work of roads, passing West, and to Cincinnati.

We extract below such parts of the Report as will show the condition of the Company and the work:

#### 1. ESTIMATED COST OF ROAD AND EQUIPMENT.

Estimated Cost as above.....	\$5,404,760
Passenger, Freight, Wood, and Water stations.....	90,000
Repairing Shops, Engine and Car Houses, Turntables and Machinery.....	100,000
Motive Power and Rolling Stock of all descriptions.....	786,000
Fencing.....	66,000
Contingencies, Engineering and Agencies.....	10,000
Total cost.....	\$6,456,760

Average total cost per mile of Road and Equipment \$26,516.

"The foregoing estimate is made upon a scale commensurate with the importance of your road, and it is believed will fully complete and equip it in such a manner as will enable it to come into successful competition for a large and remunerative traffic. The weight of rail and character of mechanical structures, buildings and rolling stock estimated, will render it in all respects a first class work."

#### 2. FINANCES.

"It will be seen by the report of the Chief Engineer, herewith transmitted, that the entire estimated cost of the work, including right of way, contingent expenses and equipment, amounts to \$6,456,760.

"For the purpose of meeting this expenditure, the Company have on hand as per Secretary's report appended, \$1,860,494.72.\* In

\*This sum has been reduced \$250,000 by the change in contract made in March last, referred to in this report, which if added to the sum total of assets, would amount to \$2,410,494.72, or equal to \$10,000 per mile.

addition to this, the Board have proffered to them at different points, conditional subscriptions within their reach, amounting to \$250,000. Add to this \$50,000 which with proper management may be secured to apply in liquidation of the balance of right of way, and we have the sum of \$2,160,494.72 applicable to the right of way, graduation and masonry, which as previously stated in this report, will nearly cover the two latter items of expenditure. But for the purpose of prosecuting this work with energy, it would be necessary that the stockholders should come forward and pay promptly the remaining installments. When this is done capitalists can see the full extent of means upon which the construction of this work is based. Let the graduation and masonry become completed, or nearly so, and we can then show a basis of credit sufficient to ensure the sale of the Company's bonds at a satisfactory rate for the purchase of the Iron, and the stockholders will then realize in the investment, all that their early anticipations predicted.

"The Board recommend to the stockholders and friends of the Road, and others desiring an investment, to take an additional amount of stock, say \$500,000, with such conditions as to payment of installments as will shield them from any liability until the Iron for the Road shall have been distributed along the line in each county where the subscription is made. By this means none need have any fears as to the result, while they would be adding greatly to the basis and credit of the Company. This sum added to the assets already presented, would be sufficient to cover the cost of graduation, masonry, bridging, cross-ties and laying track, or nearly so, and would operate for a double purpose, viz: to increase confidence along the line, and ensure a ready sale of the bonds of the Company, and on the most favorable terms.

"Assuming the accomplishment of the recommendation of the Board, and the adoption of the conditions referred to in the foregoing, they present for consideration the following statement:

ASSETS.	
Acquired means.....	1,860,494 72
Conditional subscription ready.....	250,000 00
Subscription to be applied on balance of right of way.....	50,000 00
Conditional subscription recommended....	500,000 00
Stock held by Co. which may be used or held to meet a similar amount of convertible bonds.....	1,000,000 00
Stock to be held by Co. to meet interest on stock and contingencies.....	339,505 28
	\$4,000,000 00
The Company have a right to issue bonds amounting to.....	4,000,000 00
	\$8,000,000 00
LIABILITIES.	
Cost of Construction.....	\$6,456,760 00
Balance, assets over cost.....	1,543,240 00
	\$8,000,000 00

#### 3. PROGRESS AND CONDITION OF THE WORK.

"Good policy, perhaps, would have required the whole energies of the Board to be direct-

ed to the completion of some part of the Road which would form important connections with other Roads, so that it might be yielding an income while the remainder was in course of construction; but it was impossible to act on such policy, as most of the subscriptions were conditioned that the amount subscribed should be expended in the county subscribing it. Clogged by this condition, no alternative was left the Board but to distribute the work along the whole line, to be paid in the local subscriptions, or resort to a ruinous sale of the bonds of the Company by which to raise funds to complete some portion of the work. The policy of selling bonds or loaning money before the credit of the Company was firmly established, the Board believed would be ruinous in any state of the money market, but more especially during the monetary crisis of the past year. They therefore concluded to limit the amount of work to the receipts on local subscriptions, and not to put bonds or stock in market, until a favorable change should take place in the pecuniary affairs of the country.

"Acting on this resolution, the work commenced on the 4th of July, 1853, and has been scattered along the whole line, on which much has been done, but on so extended a scale, that it affords in no one locality visible evidence of the amount accomplished. The right of way has been secured for 160 miles, and the work on the whole line is equal to from seventy-five to eighty miles nearly completed for the rail. This has been accomplished by local subscriptions including \$118,000 paid by the contractor, Mr. Doolittle, and applied on his subscription. No sale of stock or bonds has been made, nor have debts been contracted of any considerable amount, but the whole is the unincumbered property of the stockholders."

#### SANDUSKY, MANSFIELD & NEWARK R. R.

The following is the report of a committee appointed by a meeting of the stockholders and bondholders of this road, June 26, to another meeting held June 10.

The committee are satisfied that some compromise is necessary, and they think that, with some modifications and additions, the plan proposed should be adopted.

1. That the holders of bonds under first mortgages, submit to a relinquishment of two years' interest on such bonds.

2. That all the existing mortgages, and the bonds secured by the same, (except the \$24,000 remaining of the original mortgage, due in July 1855,) be surrendered for cancellation, and that there be issued by the consolidated Company a new series of bonds, to be secured by a mortgage of the entire road and equipments, equal in amount to the outstanding bonds secured by the first mortgages of the three divisions, to bear interest at the rate of seven per cent. per annum, payable semi-annually in New York. The principal of said bonds payable in twenty years, with



the privilege of conversion into the capital stock of the Company at the option of the holder. These bonds to be issued for the sole purpose of exchange, dollar for dollar, for the bonds secured by said first mortgages.

3. That there be paid in full, out of the earnings of the Road: all taxes due and unpaid; claims for labor and materials; the \$24,000 original bonds due July, 1855, and the interest on the same and all claims secured either upon the property of the Company or by such undoubted personal security as should prevent the creditor from submitting to an abatement of his claim, provided that the amount of claims so to be paid in full shall not exceed \$84,000.

4. That after the year 1857 a Sinking Fund be created, and that ten per cent. of the net earnings of the road after paying the interest on the first liens be set apart for that purpose.

5. That a receiver be forthwith appointed in the case now pending in Erie County, Ohio, with power to take possession of and manage the entire road, and all its appurtenances and property; to appoint and remove all the employees of the Company, other than the President and Directors; to receive the income of the Company; appropriate the receipts to necessary repairs and running expenses, and pay the balance of the floating debt, so that the whole cost of the property shall be represented by a sum not exceeding \$2,400,000 of bonds and stock after the expenditure of the \$200,000 appropriated to the floating debt, and to accumulate the residue, subject to further directions, and with such other powers as to the Court may seem expedient.

The committee then gave a statement of the results of the plan so modified. The entire debt and stock, now amounting to four millions of dollars, will be reduced, the preferred debts being paid, to \$2,400,000, divided into the new series of bonds \$1,200,000, and stock as reduced \$1,110,000. The reduction proposed upon the several bonds and stocks, the Committee think, will add to their actual value, the only one having any appreciable value in the present condition of affairs is the debt secured by the first mortgages. And as to this, the apparent loss of two years interest will be amply compensated by the increased value of the capital, and the certainty of future regular payments of interest, and the final redemption of the principal, while the second and third mortgages will derive their value from this compromise. The reason for a distinction between the securities stock of the Columbus and Lake Erie Company, and the Mansfield and Sandusky City Company, exists in the fact that the first named Road has cost less per mile than the last, and parties interested base their demands upon a supposed ability to make more advantageous connection with other roads.

The meeting approved the report of the committee, and recommended the plan of adjustment as proposed by them and adopted the form of contract reported. Measures were taken for the appointment of parties to solicit the signatures of the various parties interested in the contract, and also for the appointment of a competent receiver to take charge of the road. The meeting also resolved that the appointment of a receiver, as contemplated by the report, shall be understood to

continue until the 1st Monday of December next, at which time, in the event that the plan shall not be concurred in by the various parties in interest, the continuance of such receiver under the appointment herein agreed to shall cease. And on or after the 1st Monday of December, either party shall be at liberty to move for or resist a new appointment of a receiver, upon such showing as may then be made for or against such appointment.

The committee who made the report were authorized to make the appointment contemplated. It was recommended to the committee to call together the parties in interest, according to the standing of their interests.

#### VIRGINIA AND TENNESSEE RAILROAD CO.

We are pleased to observe that the prospects of this work are brightening very rapidly, and that the last loan authorized by the company of \$1,000,000 in the shape of a second mortgage on the entire road is being rapidly absorbed.

A circular has been recently placed in our hands, in which the merits of the enterprise are very fully set forth. It appears from it that the State of Virginia is a subscriber to the amount of three-fifths of the capital stock. It goes on to state that

Of the \$3,000,000 of Capital Stock subscribed for, \$2,975,100 was paid in; and that sum being inadequate to complete the road, as was well known at the commencement, the estimated expense being \$5,000,000, it was resolved to issue bonds bearing 6 per cent. interest per annum, and redeemable in twenty years, securing the same by a first mortgage on the road, to the amount of \$1,500,000. Of these bonds the State of Virginia, in further proof of the estimation in which it held the road and progress that had been made on it, agreed to take \$1,000,000, on terms more liberal than that of any loan made to any railroad in any other State of the Union. These terms were six per cent. interest, to be paid semi-annually; and an additional one-half per cent. at each half-yearly payment, for 34 years, as liquidation of the principal. In other words the State agreed to give a donation of \$1,000,000 to the road on condition that the company paid them at the rate of 7 per cent. per annum on the amount for thirty-four years. Contrast this with the way other Railroad Companies have been obliged to raise funds to build their roads' and it must readily be admitted that the State of Virginia has not only fostered this road with extraordinary care, and no doubt, a wise liberality; but it must also be evident that the road is popular with the people of Virginia, and sustained as it is, and will be, by so many interests, its perfect success is placed beyond all manner of doubt. The preliminary arrangements being all made, the money was paid by the State, in 1853; and the \$500,000 of bonds were issued on the 1st of January of that year, and disposed of privately at par, the two amounts together forming the first lien of \$1,500,000 on the road.

At the annual meeting of the stockholders, held at Lynchburg on the 25th of October, 1854, and subsequent days, full statement of the whole affairs of the company were laid before it by the President, the Chief Engineer, the Treasurer and the Superintendent. From

these it appeared that 125 miles of the road, from Lynchburg to Wytheville, had been completed and put in operation, with a sufficiency of rolling stock, etc.; and the remaining sixty-nine miles were so far constructed as, by the report of the Chief Engineer, would require only \$235,000 to complete them, making the whole road entire from one terminus to the other.

A further sum, however, would be necessary for station houses, rolling stock, etc.; and the available funds of the Company being nearly exhausted, it was unanimously resolved by the stockholders to grant a second mortgage on the road for \$1,000,000, and the President and Board of Directors were instructed to issue bonds under it, payable in 30 years, bearing interest at the rate of 6 per cent. per annum, principal and interest payable in New York. The Mortgage to Charles W. Purcell of the City of Richmond, Charles L. Mosby, and Charles R. Slaughter, of the city of Lynchburg, as trustees, dated the 15th of January, 1855, is the one so authorized by the stockholders, and the \$1,000,000 of bonds, dated 1st of July, 1854, and payable 30th of June, 1884, now offered for sale are secured by that mortgage, and are the issue which the President and Directors were authorized to make by the stockholders at their annual meeting in 1854.

Ten months' labor will be sufficient to complete the road, and it is confidently expected that by the spring of 1856, it will be ready for operation its entire length, from Lynchburg to Bristol, on the Tennessee State Line. It will then have cost the Company \$5,500,000, and their indebtedness will be \$3,000,000, for capital paid in, and \$2,500,000 for the funded or bond debt, of which latter sum, however, is the peculiar loan made by the State; but taking it at the amount stated, the funded debt will be only \$13,000 per mile, and less than one-half the actual cost.

Eighty-five miles of the road have been in operation for two years, that is from Lynchburg to Christianburg, the summit of the Alleghany, and for the year ending on the 30th September, 1854:

The receipts from all sources were.....	\$163,929 74
From which deduct expenses.....	100,792 19

And a net gain of.....\$63,137 55

remained, which is about three per cent. on the cost of the road, and shows an increase over the preceeding year of about fifty per cent.

Since the meeting of stockholders in October, fifty miles more of the road have been put in operation—that is to Wytheville, 135 miles from Lynchburg—and the reports received warrant the expectation that the earnings of the present year will far exceed the previous one.

The mining operations are expanding rapidly, and Copper, Lead and Coal are already being transported over the road in large quantities; and so soon as forty-one miles more are laid the Salt and Gypsum region will be reached, which will greatly increase the traffic, it being estimated that at least 60,000 tons will pass over annually.

In short this road is, in its local resources and prospective business, one of the most important in the United States; and, in offering the \$1,000,000 of bonds, a perfect confidence is felt that in point of security they must be considered undoubted.

It will bring the city of Baltimore in direct communication once more with the region of country through the valley of Virginia, and



the best portion of East Tennessee, with which we enjoyed in years past, a large and profitable trade.—*Bull. American.*

#### VIRGINIA AND TENNESSEE RAILROAD.

Receipts for the month of June, 1855:  
 From Freight.....\$11,032 44  
 From Passengers, Express Freight and Mail.. 8,959 96  
 \$19,992 40  
 Being over sixty per cent. greater than June, 1854.

#### MILWAUKEE AND MISSISSIPPI RAILROAD.

The receipts on the Milwaukee and Mississippi Railroad for the month of June just past, compare as follows with those of the same month last year:

	June 1854.	June 1855.
Passengers.....	\$17,310 52	\$21,642 11
Freight.....	27,252 69	43,504 47
Total.....	\$45,262 21	\$65,128 53

Showing an increase for June of the present year of \$10,876 37, or over 40 per cent.

CHICAGO AND ROCK ISLAND RAILROAD COMPANY.—The following is a report of the earnings of the Chicago and Rock Island Railroad for the month of June:

For transportation of persons.....	\$69,229 52
“ of property.....	51,535 77
“ Mails and Express.....	2,660 00
Total.....	\$123,315 29

CLEVELAND AND TOLEDO RAILROAD.—The June receipts of the Cleveland and Toledo Road were.....\$58,736  
 June, 1854..... 47,368

Increase.....\$11,363

The business of the past six months was \$442,768, showing an increase of 33 per cent. beyond the corresponding six months of 1854.

MICHIGAN CENTRAL RAILROAD.—The earnings of this Road for June, are:

Passengers.....	\$145,706 02
Freight.....	84,075 15
Mails, etc.....	6,928 25
Total.....	\$237,749 42
June, 1854.....	171,359 14

Increase.....\$66,390 28

The following gentlemen were elected Directors of the Louisville and Frankfort Railroad Co., on the 16th inst.

Thos. F. Gamble, T. Merreweather, Edw. D. Hobbs, E. Bustard, A. Vatile, G. A. Caldwell. Among the names of the new directors we recognise those of several intelligent, active and sagacious business men.

INDIANAPOLIS, CLEVELAND AND PITTSBURG R. R.—At the election of officers of this road, held at Indianapolis on the 19th inst., the following gentlemen were elected:

John Brough, President; Thos. H. Sharpe, Treasurer; D. B. Culley, Secretary.

Directors.—Dan. Yandes, Jas. W. Yandes, D. Maguire, A. Harrison, S. A. Fletcher, jr., John Brough, W. A. Otis, S. Witt, E. S. Sterling, S. V. B. Noel, David Kilgore, S. P. Anthony, Wm. Sparks, Joseph Ridgway, A. Makepeace.

RAILROAD FROM TOLEDO TO DETROIT.—At a meeting of the stockholders of the contemplated Road, held at Detroit on Tuesday last, to perfect the organization of the Company, the following gentlemen were chosen Directors:

John Wilkinson, Syracuse; Henry Ledyard, Shubael Conant, L. Chandler, J. W. Tillman, H. P. Baldwin, Detroit; D. A. Noble, Thomas G. Cole, W. W. Clarke, Charles Johnson, James Armitage, Monroe.

The President and other officers will be chosen at a meeting of the Directors to be convened next week.—*Toledo Blade.*

## Miscellaneous and Mechanical.

### A MODEL MACHINE SHOP.

Our readers will find, among our new advertisements that of Bancroft & Sellers, of Philadelphia. It is seldom that we see, in American workshops, the detail and system of which our English neighbors justly boast. This is owing, in a measure, to the character of our people and the new state of our institutions. The one will not brook sufficient control, and is more favorable to daring enterprise and rapid development than to the patient detail and mathematical accuracy of the other. It is seldom, therefore, that we see a business, reduced to the greatest system and carried on with unerring regularity. Our readers will doubtless be interested in a description which is novel to us and savors much of the staidness of European character.

The workshop of Messrs. Bancroft & Sellers is 320 feet long, in the main building, by 80 wide, and running back from this is the moulding room, 80 feet square. One main line of shaft runs through the machine shop, in its longer dimension, and a shaft at right angles to this at the end nearer the moulding room. The shafting is turned to an accurate dimension, and runs in adjustable hangers which may oscillate in two directions; the bearings are broad, but owing to the fact that they may move on their centres the friction is less than stationary narrow hangers.

The principal business of Messrs. B. & S. is making tools, lathes and shafting, and this they have systematized to the greatest possible extent. The first step to this is the adoption of a system of *standard measures*. The standard inch of the United States and its divisions into sixteenths is the standard here, and every thing is made to conform exactly to this. A set of cylinders and rings, turned with the greatest accuracy, from one sixteenth of an inch to the largest size, forms the standards. If a shaft is turned to-day one inch and seven eighths in diameter, it corresponds to the one inch and seven eighths ring in the set; and a pulley may be ordered a year hence which will exactly fit the shaft, inasmuch as it will also correspond in the minutest degree to the same standard. A set of inside and outside fixed calibres are made to correspond with this set of standards, and these fixed calibres are the only ones ever used in the establishment. When the piece of work is given out, the proper calibre is given to him and charged to his account by the book-keeper in charge of the standards; when he completes the work the calibre is returned and credited. In this manner uniformity of dimension is secured in the work; and many articles, which in the ordinary mode of proceeding are turned and fitted, are thus con-

verted into stock and kept on hand to supply orders.

This is carried out in all the machinery manufactured by them. In a piece of machinery manufactured here, if a bolt or screw, or cross-head is broken it can be replaced irrespective of that particular machine, as it is known to be of a standard dimension, and when made of that dimension must fit where it belongs.

LATHES.—In lathes, weight of metal is not spared for the purpose of saving cost; full as much, and in some instances a little more metal is used than is necessary to give strength and steadiness of motion; hence their lathes do not spring under heavy work, as is sometimes the case with those of lighter make. The cone pulleys are turned inside and outside, to give them uniformity of weight and prevent liability to jerks in movement from greater weight on one side than on another. The screw which governs the motion of the tool instead of being supported only at the ends is supported in its whole length by a gutter; and the gear, instead of being cast and then finished, are all cut from solid metal by a machine, being first laid out with extreme accuracy. This is the case with all the gear made in the establishment. It is never cast, but in every case laid out with care and cut by machine. Wheels are first turned and polished and the teeth then made as above; racks planed and then finished as before.

In surfaces which work on each other, after being planed they are brought to actual contact by scraping, and the fit in every case made perfect. No minuteness of detail is allowed to escape, but the smallest details receive the most careful attention. The machines thus made are therefore of the most elaborate kind and in their turn, when properly used are capable of performing the most accurate workmanship.

It is to be regretted that the example thus set is not more generally followed. Machinery made in this manner is certainly better and more readily repaired than where every piece fits its own machine alone.

TAMAQUA, PA., July 11. 1855.

EDITOR R. R. RECORD—DEAR SIR:—I received a copy of your valuable paper to-day, containing a long account concerning fuel for Locomotives, a thing which I have taken a great interest in for the last fourteen years. I am now building a Locomotive which will burn either hard or soft coal, as well as the common Locomotives burn wood; the engine which I am now building will be finished in about thirty days, then I shall be able to test the thing fully. There has been one of my Locomotives in operation for eight or ten months, which has given entire satisfaction in burning hard coal. I have also succeeded



in getting a water grate bar to work well, it has been in use about four months. I have it now in two engines, and I believe this to be the only thing to burn coal without making clinker either in hard or soft coal. I am satisfied this engine will save from forty to fifty per cent. in fuel, over the common wood burning engine; my boiler has sixty per cent. more fire surface in it, than the other boilers have of the same size, which gives my engine a great advantage over the common wood burning ones. I think this engine would be of great advantage to your western railroads, as many of them are in the immediate vicinity of the soft coal fields.

Very Respectfully,

L. PHLEGER.

#### STORM'S CLOUD ENGINE.

If a glass bull's-eye be introduced in the top or side of an ordinary steam boiler (says the *Tribune*) the steam within is found to be perfectly transparent and invisible. But on turning a cock the escaping steam is found to be white and cloud-like. This is due to the cooling effect of the air, which mixes with and apparently condenses it. Mr. Storm's experiments led him to the conclusion that the volume of the whole is increased by the combination, and this to a very considerable degree, as high under favorable circumstances as 75 per cent., and consequently affording a corresponding increase of efficiency in an engine. If common air be compressed and introduced at an ordinary temperature into a vessel containing steam at the same pressure, the following effect may be anticipated: On the one hand a portion of the steam will be condensed and changed to water, which will diminish the pressure; but on the other hand the air will be heated and expanded; and these two effects may be supposed very nearly if not exactly to balance each other. But the experiments alluded to indicate a very decided increase of volume, provided there is a sufficient difference of temperature. If pure transparent steam be mingled with air previously heated to the same degree, none of this expansion is experienced, and it becomes a question how to compress air in a pump and convey it in a cold state into a heated cylinder.

Mr. Storm's avoids the solution of this difficult problem by allowing the air to mix thoroughly with the steam at any temperature it may chance to have, cooling it afterward by expansion. In other words, he mixes hot or warm air with the steam in the steam-chest, and does not expect the mixture to assume the cloud form until it commences to expand in the cylinder. The act of expanding cools both steam and air, but in very different proportions. Pure steam of a high pressure (say 60 lbs.) has a temperature of about 310° F., and if cut off at a half-stroke, so as to double its volume by expansion, cools down to only about 270, while air at the same temperature if expanded to the same extent cools down to about the freezing point. Thus the combined fluids may readily be compelled by expansion to assume the form of cloud or vesicular vapor if the presence of air at a different temperature be the only condition necessary. To accomplish this object in an ordinary horizontal engine, Mr. Storms has in the instance above referred to placed a double-acting air-pump near the cylinder, and allows

it to discharge into the steam-chest just above the valve. As the first portion of the stroke of the pump is spent in simply compressing its contents, it is so timed that it will begin to deliver with the commencement of the stroke of the piston. The pump is enveloped in a jacket of cold water to keep it cool, and the air probably enters the steam-chest at a temperature of from 180° to 250°.

A series of experiments have been lately tried at the Novelty Works on a tolerably large scale. The engine was run first with steam alone, and then with the cloud combination, the resistance being constant in all cases. The revolutions produced per lb of coal were as follows: Steam 107, cloud 190; showing a great advantage by the use of the cloud vapor.

#### IRON MOUNTAIN REGION, MO.

The iron mountain region of Missouri is a spot of national importance.

Situated near the centre of the Mississippi Valley, about forty miles west of the river at Ste. Genevieve, and eighty miles south of St. Louis, the Iron Mountain, one of the spurs of the Ozark range, rising about 260 feet and embracing 500 acres, is estimated to contain more than 200,000,000 tons of ore above its base; and its base is 628 feet above St. Louis directrix, and 1000 feet above tide water in the Gulf of Mexico.

The Pilot Knob, another spur of the Ozark Mountains, six miles further south, rising like a cone 550 feet above its base, 1088 feet above St. Louis directrix, and 1460 above tide water of the Gulf of Mexico, embracing also about 500 acres, is capped on its summit by a vast body of solid iron ore, appearing from a distance like an immense black turreted castle.

The Shepherd Mountain, whose summit is nearly 700 feet above its base, adjoining that of the Pilot Knob, abounds with an ore which "is peculiarly adapted to the manufacture of steel of all kinds; it is one of the most valuable ores in Missouri, and fully equal to the Denamora ores of Sweden, from which the best English cast-steel is made."

Various other spurs of the Ozark, known as Pratt, Bogy, Christy, Shut-in and Russell mountains, all of which are within six miles of the Pilot Knob; abound with ores, most of which are of the first quality for making iron direct from the ore in the Catalan fire, the Bogy and Christy ores partaking of the same nature with the Shepherd Mountain ore, being very valuable for steel-iron.

The ores of this region are mainly specular oxide, and yield from sixty to seventy per cent. of pure iron, through large beds of hematite ore are found near the Pilot Knob, which taken with the ore of that mountain produce the best quality of pig iron.

The ore of the iron mountain produces tougher iron than that of the Pilot Knob, while the ore of the Pilot Knob, as is contended by some persons, produces finer steel than that of the Iron Mountain, and combinations of the two produce every desirable variety, and each of the most excellent quality.

The iron mountain is near the centre of a tract of 20,000 acres, belonging to the American Iron Mountain Co.

The Pilot Knob, and the various other mineral spurs mentioned above, and lands amounting altogether to more than 20,000 acres belong to the Madison Iron & Mining Company.

These companies are now engaged in developing a small portion of their inexhaustible

resources. Three blast furnaces are now in operation at the Iron Mountain, two of which are just in blast. When all three get in full operation, it is estimated that they will make at least thirty tons per day. One of these furnaces now in full operation made 421 tons of pig iron, and five tons of casting, being 426 tons during the month of April, and in the next month, May 1855, made 443 tons, being more than fourteen tons per day. This furnace whose production is so extraordinary, and is said to be unsurpassed, if it is equalled by any other furnace of its size and class in the world, is thirty-eight and a half feet high and nine feet high across the bosh. The tons are calculated at 2268 pounds each. The coal consumed in making one ton of iron is 164 bushels, 2500 inches being the standard bushel of coal, while in Ohio, Pennsylvania and Tennessee the standard bushel is 2700 inches. The iron made is mostly No. 2, and is unsurpassed for malleable and car wheel purposes, as also general forge purposes.

The Company have no forge at the Mountain, but Messrs. Prewitt and Patterson are operating one, called Valley Forge, which is situated twenty-five miles from Ste. Genevieve, on the plank road leading to the Mountain. This forge commenced operation in June, 1853, and has ten fires. Eight of the Catalan fires are making iron direct from the ore at the rate of from thirty to thirty-five tons of blooms per week. The other two fires, working from the pig made from the Iron Mountain ore, producing what is called the refined or Knobbled Bloom, turns out, together with the eight Catalan fires about 40 tons per week.

Thus it appears that the three furnaces at the Mountain, and the Valle Forge near Farmington, together, when in full operation, are capable of producing two hundred and fifty tons per week.

The Madison Iron and Mining Co. have two blast furnaces for making pig metal, and one forge with eight fires—six Catalan fires making iron direct from the ore, and two fires making knobbled bloom at Pilot Knob. One of the furnaces is now being enlarged—built higher—the other is now making twelve tons of iron per day, and is constantly increasing in its daily production. This furnace is 43 feet high, and twelve feet wide across the bosh. It was lately built, and working on hot blast, its capacity is estimated at fifteen tons per day. Furnace No. 1, which is now being enlarged, also 43 feet high and ten feet across the bosh, and which will be completed about the 1st of July, 1855, and also working on hot blast, is estimated will be capable of turning out an equal amount of iron with furnace No. 2, making thirty tons per day.

The eight fires of the forge are now making about thirty-five tons of blooms per week.

On these estimates and evidences of the capacity of the forge and furnaces at the Knob, which data are derived from different and good authorities, it appears that when in full operation they will be capable of producing 245 tons per week, which, added to the weekly productions of the Valle Forge and of the furnaces at the Iron Mountain, make a sum of nearly 500 tons per week, and more than 25,000 tons per year—*West. Jour.*

**SUGAR.**—The average annual quantity of cane sugar produced and sent into the markets of the civilized world is above one million tons, exclusive of that manufactured in China and the Malaysian archipelago.



TABLE OF RAILROAD BONDS AND SHARES, WITH MARKET VALUE, CORRECTED TO WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHARES.	OFF'D.	ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872.....	7 1879					
Baltimore and Ohio.....	Transferable, Taxed.....	6 1885	70%		100	44	44
Do do.....	Coupons, Not Taxed.....	6 1875					
Do do.....	" ".....	6 1880					
Do do.....	" ".....	7 1880					
Do do.....	" ".....	6 1885					
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866	98		50	45	
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866					
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870	98	99		96½	100
Chicago and Mississippi.....	1st " ".....	7 1862					
Do do.....	2d " ".....	7 1874	65				
Chicago and Aurora.....	1st " ".....	7 1866					
Cincinnati, Newcastle and Mich.....	Real Estate.....	7 1870					
Cleveland, Columbus, and Cincinnati.....	1st mortgage, convertible.....	7 1859			100	93½	95
Do do.....	No mortgage, convertible.....	7 1855					
Cleveland and Mahoning.....	1st mortgage.....	7 1861			100		
Cleveland, Painesville, and Ashtabula.....	2d " not convertible.....	7 1861					
Do do.....	1st " convertible.....	7 1860				56½	58
Cleveland and Pittsburgh.....	1st " 2d sec. convertible.....	7 1873					
Cleveland and Toledo.....	1st mort. not conv. 73.....	7 1863	93	94	50	90½	93
Cleveland, Zanesville, and Cincinnati.....	1st mortgage.....	7 1867				81½	83
Cincinnati, Hamilton and Dayton.....	2d mortgage " till 1855.....	7 1860	85½	88			
Do do.....	1st mortgage, real estate, conv.....	10 5 & 10 y's	27	30			
Cincinnati, New Castle and Michigan.....	2d " ".....	8 1867	44½	71		12½	14
Cincinnati Western.....	1st " ".....	7 1867	69½	71		40	45
Cincinnati, Wilmington and Zanesville.....	Real Estate.....	8 1859	40			10½	15
Cincinnati, Indianapolis and Chicago.....	1st mortgage, convertible.....	7 1862	75	76			
Cincinnati and Chicago.....	2d " ".....	7 1862	60	61			
Columbus, Piqua and Indiana.....	1st mortgage, convertible.....	7 1859	80			90	100
Do do.....	2d " ".....	7 1863	63½	65	50	30	31
Columbus and Xenia.....	Income.....	10 1867	69½	75	50	20	22
Covington and Lexington.....	1st " ".....	7 1862			50	20	21
Do do.....	1st " ".....	7 1862					
Dayton and Michigan.....	1st " ".....	7 1864	26	30			
Dayton and Western.....	1st mortgage.....	7 1862		60	25	50	51
Dayton, Xenia and Belpre.....	1st mort. guaranty Mich. S. R. &.....	7 1862					
Eaton and Hamilton.....	1st mortgage.....	7 1867	80	81		12½	14
Erie and Kalamazoo.....	1st mortgage.....	7 1867					
Evansville and Crawfordsville.....	1st mortgage.....	7 1867					
Fort Wayne and Southern.....	1st mortgage.....	7 1867					
Franklin and Warren.....	1st mortgage.....	7 1867					
Galena and Chicago Union.....	Pledge of second section, convertible.....	10 1853-6	92½	60	100	104½	108
Hillsboro and Cincinnati.....	1st mort. ".....	7 1857	54½	60	50	25	27
Illinois Central.....	1st mortgage, not convertible.....	6 1875	85½	87	100	97	100
Do do.....	Freeland.....	7 1866	85	86			
Indiana Central.....	1st mortgage, convertible.....	7 1866	63½	75	50	50	52
Do do.....	" ".....	10 1857	60	75	50	50	50
Indianapolis and Bellefontaine.....	1st " ".....	7 1860-1	75		25	50	50
Indianapolis and Cincinnati.....	2d mortgage.....	7 1861	80	82	50	70	73
Indianapolis and Lafayette.....	1st " not ".....	7 1861					
Jeffersonville.....	1st " ".....	7 1867			59	11	15
Junction (Ohio).....	Real Estate.....	10 1864	72	73		12½	
Do Indiana.....	1st mortgage, not convertible.....	6 1863	77	82	100	97	100
La Crosse and Milwaukee.....	" " till 1855.....	7 1861			50		
Little Miami.....	1st mortgage, convertible.....	7 1858	9		100		
Do do.....	1st mortgage, convertible.....	7 1873					
Louisville and Nashville.....	1st mortgage, convertible till 1855.....	7 1855-6		75	50	40	43
Lyons, Iowa, Central.....	2d " ".....	7 1866		75			
Mad River and Lake Erie.....	Dividend.....	7 1860		75			
Do do.....	1st mortgage, convertible after 1853.....	6 1861			50		
Madison and Indianapolis.....	Domestic Bonds.....	7 1868	57½	60	50	27½	30
Marietta and Cincinnati.....	2d " ".....	7 1868			50		
Do do.....	1st " ".....	7 1868					
Hillsboro and Cincinnati.....	1st mortgage, convertible.....	6 1873			50		
Maysville and Big Sandy.....	No mortgage, convertible.....	8 1860	97			93½	95
Maysville and Lexington.....	" " not ".....	8 1855-6					
Memphis and Charleston.....	1st " ".....	8 1857-8					
Michigan Central.....	1st " " 1857.....	8 1860	100			104½	105
Do do.....	1st mortgage 6s. 1884.....	7 1861					
Michigan Southern.....	mortgage on 1st section.....	10 1858-62			50	14½	18
Milwaukee and Mississippi.....	1st " on other section, convert.....	8 1864-75					
Mobile and Ohio.....	1st " convertible.....	6 1873					
Nashville and Chattanooga.....	2d " ".....	7 1867	102½	104	100	101½	103
New Albany and Salem.....	1st mortgage, not convertible.....	7 1867	86½	87		52½	54
Do do.....	2d " convertible.....	7 1871	95	95			
New Castle and Richmond.....	1st mortgage, convertible.....	7 1883					
New York Central.....	1st " not convertible.....	8 1873				97	98
New York and Erie.....	1st " ".....	7 1861	79				
Do do.....	1st " Goshea line.....	7 1868	90	91			
Northern Cross, Ill.....	Construction Bonds.....	7 1861	61			45	46
Northern Indiana.....	1st mortgage, convertible.....	7 1860	50	53	50	14½	18
Do do.....	2d " ".....	7 1867					
Do do.....	1st " ".....	7 1865					
Ohio Central.....	Income. No mortgage, convertible.....	7 1872			50		
Ohio and Mississippi.....	1st mortgage, convertible.....	7 1866	101½	105		101	101
Ohio and Indiana.....	" " Guar. City of Baltimore.....	7 1873					
Ohio and Pennsylvania.....	1st mortgage, convertible till 1860.....	6 1890			50	43½	40
Pacific, Mo.....	1st " ".....	7 1872			25	30	31
Panama.....	1st " ".....	7 1860			50		
Parkersburg (or Northwestern Va.).....	1st " ".....	7 1860					
Pennsylvania.....	1st " ".....	7 1860					
Peru and Indianapolis.....	1st " ".....	7 1860					
Rock River Valley Union.....	1st " ".....	7 1860					
Sandusky and Mansfield.....	2d " ".....	10 1853-7					
Do do.....	1st " income.....	7 1861	50	51	50	50	51
Scioto and Hocking Valley.....	1st mortgage, convertible.....	7 1865					
Southwestern, Tennessee.....	1st " ".....	8 1862-72	93½	94			
Springfield and Columbus.....	2d " ".....	8 1865	89	90			
Stevensville and Indiana.....	1st " ".....	6 1866					
Terre Haute and Alton.....	1st " ".....	7 1863	87	88	50		
Do do.....	2d " ".....	7 1863					
Terre Haute and Richmond.....	Guar. of C. C. & C.....	1863					
Toledo, Norwalk and Cleveland.....							
Do do.....							
Do do.....							



## STOCK TABLE.

CORRECTED WEEKLY.  
GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D
U. S. Loan.....	6	1856	105	105
Do .....	6	1862	112½	113
Do .....	6	1867	119½	120
Do .....	6	1868	119½	120
Do (Int. ceased July 1) 5	5	1853		102
Do Coupons.....		1862		118
Do .....	6	1867		118
Do .....		1853		101

## STATE.

Alabama.....	5			
California.....	7	1870	85½	86½
Arkansas.....	6			96
Georgia.....	6		98	99
Do .....	7			
Illinois Canal Bonds.....		1860		
Do do registered.....		1860		
Do do .....		1847		
Do do registered.....		1847		
Do do Internal Imp't. 6	6	1847	103	103½
Do Interest do.....			64	64
Indiana.....	5		85	87
Do .....	2½		53	54
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	100½	
Do .....	5			
Louisiana.....	6		93½	96
Michigan.....	6		97	98
Missouri.....	6		93½	95
New York.....	6	1860-61	111	114
North Carolina.....	6		97½	100
Ohio.....	6	1856	100	
Do .....	6	1860	105	106
Do .....	6	1870	110	111
Do .....	6	1875	110	111
Do .....	5	1855		
Pennsylvania.....	6			
Do .....	5	1870	88	89
Tennessee, long loan.....	6	1890	97½	98
Do Coupons.....	5		81	83
Virginia Coupons.....	6	1886	97½	98

## CITY SECURITIES.

Albany.....	6	1871-81		99½
Allegheny.....	6	1875-7		80
Baltimore.....	6	1870-90	99½	100½
Do .....	5	1865		
Boston Bonds.....	4½	1860		
Chicago.....	6	1873-7	92½	95
Cleveland.....	6	1879	103½	105
Cincinnati.....	6	1860-92	96	96½
Do .....	6	1897		
Do .....	5	1884		
Do W. W.....	6	1865		
Covington.....	6	1857	85	87
Jeffersonville.....	6	1890	70	
Louisville.....	6	1880	86½	87
Memphis.....	6	1882		72½
New York.....	7	1857	100½	
Do .....	5	1878-00	95	99
Do .....	5	1870-5	97	100
Do .....	5	1890		
Philadelphia.....	6	1876-90	94½	95
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1883		
Racine.....	7	1873	61½	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1873	81½	83

## COUNTY BONDS.

Bourbon, Ky.....	6	1881	77½	80
Darke, O.....	7			
Fairfield, O.....	7	1862		
Fayette, Ky.....	6	1881-3	75	75
Hancock Co.....	7		70	75
Mason, Ky.....	6	1881	73	76
McCracken Co. Ky., endorsed by				
New Orleans and Ohio R. R.				
St. Louis.....	6	1866	80	85
Do .....	7	1871		

## BANKS.

American Exchange Bank, N. Y.....	105½	
Ohio Life Insurance and Trust Co.....	102	103
Washington Insurance Co.....	84	85
City Insurance.....	70	
Cincinnati Insurance Co.....	84	
National Insurance.....	75	80

## KENTUCKY.

Bank of Kentucky and Branches.....		
Northern, and Branches.....	100	
Southern, and Branches.....		
Bank of Louisville.....	93	
Kentucky Trust Co.....		
Farmers' Bank of Kentucky.....	103	108
Commercial Bank of Kentucky.....		

## INDIANA.

State Bank and Branches.....		
TENNESSEE.		
State Bank and Branches.....		
Union.....		
Planters.....		

## LAND WARRANTS.

160 acre warrants.....	Off'd.	Ask'd.
80 acre warrants.....	88	
40 acre warrants.....	44	

## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	½	¾ prem.
Boston.....	Sight.....	½	¾ prem.
Philadelphia.....	Sight.....	½	¾ prem.
Baltimore.....	Sight.....	½	¾ prem.
New Orleans.....	Sight.....	½ dis.	to par.
England.....		110	110½.

## SPECIE.

	GOLD.
California clean, \$ oz.....	\$17 60 @ \$17 65
Spanish Doubloons.....	16 75 @ 16 75
Patriot Doubloons.....	15 75 @ 15 80
Sovereigns.....	4 85 @ 4 87
Guineas.....	5 09 @ 5 00
American, new.....	1 00 @ 1 00
American, old.....	1 06 @ 1 06
Portuguese.....	1 00 @ 1 00½

## SILVER.

American Dollars.....	1 04 @ 1 04
American Halves.....	1 04 @ 1 04½
Spanish Dollars.....	1 12 @ 1 13
Spanish Quarters.....	1 00 @ 1 01
Mexican Dollars.....	1 05½ @ 1 06
Five Franc pieces.....	97½ @ 98

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

## MERCHANTS' EXCHANGE,

## AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending July 25, 1855.

\$2,000 City of Cov. 6 per cent. Bonds, due		
1st Sept., 1856, Int. payable Annually.....	85	(& int.)
5,000 City of Wheeling 6 per cent. R. R. Bonds, Int. payable semi-annually in N. Y.....	75	"
3,000 Cov. & Lex. R. R. Co., 2d Mort. 7 per cent. Bonds.....	63½	"
1,000 Hillsboro & Cin. R. R. Co., 1st Mt. 7 per cent. Bonds.....	54½	"
2,000 Cin. & W. & Zanes. R. R. Co., 2d Mort. 7 per cent. Bonds.....	69½	"
2,000 Ohio & Miss. R. R. Co., 2d Mort. 7 per cent. Bonds.....	50	"
1,250 Scioto & Hocking Valley R. R. Co., Income Bonds due 1858.....	50	"
1,600 Coupons Cin. & Western & Cin. & Chic-o R. R. Co., due 1st Jan. and 1st July last past from 8 per cent. Bonds.....	72	"
3,000 Cov. & Lex. R. R. Co., 10 per cent. Income Bonds, due 1859.....	69½	"
3,000 Cin. & Chic. R. R. Co., 8 per cent. Real Estate Bonds due in 1859.....	40	(& int.)
40 Shs. Cov. & Lex. R. R. Stock 30		"
200 " Cin. & Chicago " " 10½		"
10 " N. Albany & Salem " " 14½		"
18 " Marietta & Cin. " " 27½		"
50 " Ohio & Mississippi " " 14½		"
100 " " " " 15		"
200 " " " " 14½		"
25 " Little Miami " " 97		"
24 " Indianapolis & Cin. " " 70		"
100 " Dayton & Western " " 20		"
37 " Mad River & L. Erie " " 81½		"
10 " Hillsboro & Cin. " " 25		"
30 " Cin. & Xenia 6d's. " " 93		"
120 " Cin. & Har. & Ind. " " 7½		(& int.)
35 " Farmers Bank Ky.....	105	

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAITE, STOCK BROKER, LON.

July 6th, 1855.

Cleveland and Pittsburgh, 1st Mort, 1850, — @ 80	
Eric, 3d Mortgage, 1883, — 87 ½	88
" Sinking Fund, — 83½	84½
Grand Trunk (Canada) Debenture, — 95	97
Great Western " conv., — 112	114
" " non-conv., — 105½	106½
Illinois Central, 1st Mort., 7's, — 76	77
" " 6's, — 74	76
Little Miami 1st Mort. not conv. 6's, — 82	83
Marietta and Cincinnati, 1st Mort., — 77	82
Michigan Central, conv., 8's, — 92	94
N. York Central, No Mort. Not conv., — 81	83
" " conv., — 94	96
Ohio and Mississippi, 1st Mort., — 84	86
Ohio and Pennsylvania, Income 1872, — 80½	81½
Pennsylvania, 1st Mort., conv., — 91½	92½
" " Sterling, 2d Mort., — 91½	92½
Steubenville and Ind., 2d Mort., — 88	90

## Monetary and Commercial.

Dullness and quietude is the great feature of the past week. The demand from first class borrowers, is by no means equal to the supply of capital. Transactions have been very limited and unimportant, hence there is considerable capital unemployed. We quote rates on good paper at 6@12 for paper not having more than sixty days to run, with all the intermediate rates to 24 for paper not first class.

Eastern Exchange remains unaltered, and is steady at ½@¾ prem. There is a full supply, and demand very moderate.

In sight draft on New Orleans there is nothing doing, and prices are merely nominal.

At the East the money market continues easy, and the banks are extending their discounts. There is an increase of deposits in the New York Banks since December last of \$22,000,000, with a decreasing supply of business paper, hence considerable have been forced into stock securities.

The continuation of fine weather, and the undoubted evidences from all quarters of large and excellent crops, has caused a decline in bread stuffs. The Philadelphia North American of Saturday says, "There has been quite a panic in the Wheat market during the last few days. New Southern has been arriving freely, and, with a limited demand for milling, the large operators are mostly holding off. Prices have receded fully 70c per bus. since the close of last week.

The Evansville Journal, says: Flour is fast approaching its minimum price for which it can be produced. About one month since, flour was selling in this city at \$10, wheat at \$1.80, and but little to be had at that. Good flour is now retailing at \$5, with a strong probability of a further reduction. Wheat cannot be sold in large quantities to the millers at 75 cents. On the Tennessee river we hear of sales at 37½ cents, for shipment to Louisville. The present crop will soon be in market, and we can conceive of no demand that will sustain even the present prices.

During the past week, although the receipts of new flour have been very light, the price has fallen somewhat; we quote new wheat flour at from \$7@7.10 for good ordinary brands, \$7.25 for choice. Old wheat flour scarce and worth \$8.50. Oats are offered at 40c., buyers however, are not disposed to sustain these figures, and do not offer over 35 cents.

In Dry Goods, the trade, says the N. Y. Economist, since our last has been more animated for certain descriptions of Woolen and Cotton goods, such as Fancy Cassimeres, Mousseline de Lanes and Prints; but otherwise the trade remains in a quiet condition, without probably much prospect of a revival before the beginning of next month.

The Philadelphia North American of Saturday, says: "By the Pacific, we learn there is an unsettled market both for Pig and Bar Iron. Scotch Pig is offered 2s. @ 5s. below previous quotation, with an indifferent demand. The Staffordshire Iron masters, at their late quarterly meeting, determined to leave the prices of Bar unchanged. There is less underselling than heretofore, with an improving market, for all which it is not expected the demand for the ensuing quarter will equal the capacity of the mills in operation, unless there should be a speculative disposition in the trade. The accumulations of American Pig at the furnace banks continue to be a barrier to an advance of price at the seaboard corresponding to the prices of Scotch. The difference in price now existing amounts to \$4@6. Many brands of American Anthracite Pig, possessing all the peculiar qualities of the Scotch, are gradually taken the place of the latter for foundry purposes, and this is especially the case when the difference in price to the consumer is in favor of the former. There is very little iron in the Susquehanna region or West of it. Several furnaces are commencing blast."

## SALES AT THE NEW YORK STOCK BOARD, July 21.

2,000 Ind. State 5's.....	84½
5,000 Erie, conv. bd's 71.....	86½
1,000 Erie of 75.....	92
5,000 Illinois Central Railroad Bonds.....	85½
15,000 N. Y. Central 7's.....	102½
5 Shares Ohio Life & Trust Co.....	100½
60 " Hudson River R. R.....	40½
48 " Mich. Central R. R.....	93½
50 " Reading R. R. Co.....	90½
70 " N. Y. Cent. R. R. Co.....	101½
50 " Cin. Ham. & Dayton R. R.....	83
100 " Clev. & Toledo R. R. s30.....	90½
40 " Clev. & Pitts. R. R. ex. div.....	56½
18 " Galena & Chicago R. R. ex. div. 104	
43 " Chic. & Rock Island R. R. b. 3.....	93½



**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,  
**PHILADELPHIA, PA.,**  
 Manufacture, in addition to their well  
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**ENGINEERS' & MACHINISTS' TOOLS,**  
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**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a  
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 Modern Languages.

The seventeenth semi-annual session opens on the  
 second Monday in September, (10th September, 1855).  
 Charge \$102 per half yearly session, payable in ad-  
 vance.

Address the Superintendent, at "Military Institute,  
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P. DUDLEY,

President of the Board.

jy26 2m

**Important to Railroad Companies, etc.**



**Leavitt's Railroad Frog-Points,  
 Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel,  
 in a liquid state, can be moulded into any shape or  
 form, are, by means of this valuable discovery, manu-  
 facturing

**RAILROAD FROG-POINTS,****Lathe Mandrels, Guages**

of every description for blacksmiths' use; Steps for  
 Mill Spindles and Shafting, Swage Hammers, and almost  
 all the different variety of tools which are difficult to  
 forge. Articles made in this manner, are much super-  
 ior to forged productions, as the steel out of which  
 they are manufactured, loses none of the carbonic ele-  
 ment, but retains it in all its original purity, while  
 under the repeated heats to which it is subjected by the  
 old and tedious process, it loses much of this valuable  
 property. They are also produced in a much more per-  
 fect state, needing little or no fitting or dressing, hav-  
 ing all the accuracy of shape which moulded articles  
 possess. They can, also, be furnished at one-half the  
 cost of the others.

The qualities of the Frog-Points have been already  
 tested by the Ohio and Mississippi Railroad Company,  
 to whom the manufacturers are furnishing them through  
 G. Becker & Co., Cincinnati.

Measures have been taken to secure a patent for this  
 valuable invention. **LEE & LEAVITT,**

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the pub-  
 lic to their valuable and extensive assortment of cast  
 steel saws, and circular saw mills, etc.

**CINCINNATI STOCK SALES.****HEWSON & HOLMES,**

Have constantly on hand and for sale at the Stock  
 Board, Merchant's Exchange, and at private sale,  
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Regular sales at Stock Board on Wednesday and Sat-  
 urday of each week.

FOR SALE.

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 Central Ohio Railroad Stock.  
 Cincinnati, Hamilton and Dayton Railroad Stock.  
 Cincinnati and Chicago Railroad Stock.  
 Cincinnati, Wilmington & Zanesville Stock.  
 Columbus, Piqua & Indiana Stock and Bonds.  
 Columbus & Xenia Stock.  
 Covington & Lexington Stock and Bonds.  
 Eaton & Hamilton Stock.  
 Fort Wayne & Southern Stock.  
 Greenville & Miami Stock.  
 Hillsboro' & Cincinnati Stock.  
 Indiana Central Stock.  
 Indianapolis & Cincinnati Stock.  
 Junction (Indiana) Stock.  
 Little Miami Stock.  
 Mad River & Lake Erie Stock.  
 Madison, Indianapolis & Peru Stock.  
 Marietta & Cincinnati Stock.  
 New Albany & Salem Stock.  
 Ohio & Mississippi Stock.  
 Peru & Indianapolis Stock.  
 Springfield, Mt. Vernon & Pittsburgh Stock.  
 quantities varying from 10 and upward.

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83 &amp; 85 Walnut Street.

dec27



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AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

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**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles  
 used by Railroad Companies, we will fill orders  
 promptly at manufacturers' prices, and are now prepar-  
 ed to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames'  
 Tire and Crank Axles, Chairs and Spikes. Loco-  
 motive Head Lights, (of several makers) Car,  
 Conductor's, Signal, Switch, Stoker and other  
 Lanterns. Drawbridge and cross Road  
 signal Lights; Gum Packing and  
 Hose, assorted Car Trimmings,  
 Enameled head and  
 Linings, Plated and  
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—ALSO—

Machinists' Tools,  
 particularly adapted to  
 Railroad Work, Mill Work,  
 Shafting and Shop outfits, Punch-  
 ing and Shearing Machines, for Boiler  
 Work; Planers, Lathes, Drills, Portable  
 Forges, etc., etc. Oak-Tanned Belting, of supe-  
 rior quality of all sizes. jyl3.

**CATALOGUE OF PATENTS;**

Showing the Subject or Title of Every Patent granted  
 by the United States Patent Office prior to the present  
 year, and the number under each title; being a complete  
 view of all that has hitherto been done in the whole  
 field of Invention. Price 25 cents. For sale only by  
 the Author. Copies sent by mail Address,

J. S. BROWN,  
 Washington, D. C.

**NOTICE TO CONTRACTORS.**—Sealed proposals will  
 be received at the office of the subscribers, in Dres-  
 den, Weakley county, Tennessee, until Monday, June  
 11th, 12 o'clock M., for the grubbing and clearing, grad-  
 ing, masonry &c., of fifty miles of the Western di-  
 vision of the Nashville and Northwestern Railroad,  
 being that portion from the junction of the Mobile and  
 Ohio Road from Obion (13½ miles from Hickman, in  
 Ky.) to Huntingdon in Carroll county. The work is  
 divided in sections of about one mile each, and bids  
 will include one or more sections. The soil is light  
 and easily excavated; the location is healthy and well  
 watered, and supplies are abundant and cheap. Pay-  
 ments will be made monthly in cash, but propositions  
 will be favorably considered for a portion to be paid  
 in stock or bonds of the road.

Bids will be received at our office in the city of Nash-  
 ville for the grading and masonry of thirty miles of the  
 Eastern division of said road, until Tuesday, July, 10th,  
 M. This division of the work is heavy—containing  
 about 140,000 yards of rock excavation—25,000 yards of  
 masonry, besides a large amount of earth excavation,  
 bridging &c. The entire road is easy of access, via  
 Cumberland river to Nashville, Tennessee river to  
 Reynoldsburgh and Hickman on the Mississippi, with  
 good roads along the entire line. Profile, plans and  
 specifications may be seen at the office in Nashville, at  
 any time before the letting, and at Dresden one week  
 previous to letting the Western division.

The letting at Nashville will be postponed until Satur-  
 day, August eleventh.

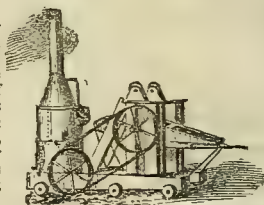
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[Railroad Journal please copy.]

**BECKER & RUST,**  
 General Contractors.

**"GARDNER'S ROCK DRILL."**

DESIGNED for Min-  
 ing, Tunneling, Quar-  
 rying use, and Rock  
 Excavations of all de-  
 scriptions, by the use  
 of which a saving of  
 50 to 75 per cent. is  
 made. This drill can  
 be operated by hand,  
 horse, or steam power  
 and works equally as  
 well horizontally or at  
 any angle, as perpen-  
 dicularly.



A silver medal, the highest prize, was awarded these  
 Machines at the World's Fair.

Applications for Territorial Rights and Machines must  
 be made to the Patentee.

G. ARTHUR GARDNER,  
 Trinity Building, N. York.

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WE have now attached to this office an ex-  
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 FICERS and others to our extensive establishment,  
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We are fully prepared to furnish Railroad and  
 other Reports, with or without Maps or other Il-  
 lustrations, gotten up at short notice and in supe-  
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 the parties.

Also, Railroad Tickets and Conductors' Checks.  
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 isfaction to all who may favor us with their or-  
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**AUBIN'S PATENT.**—We are agents for this new  
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 eration at our office for several months past, can  
 confidently recommend it as being simple in its  
 operation, occupying little room and furnishing a  
 pure and beautiful burning gas. From the pecu-  
 liar arrangement of the retort it is not liable to  
 burn out, thus saving a great part of the expensive  
 repairs of other furnaces. We are prepared to  
 erect these furnaces at our own risk and warrant  
 them to produce good gas.

**T. WRIGHTSON & CO.,**

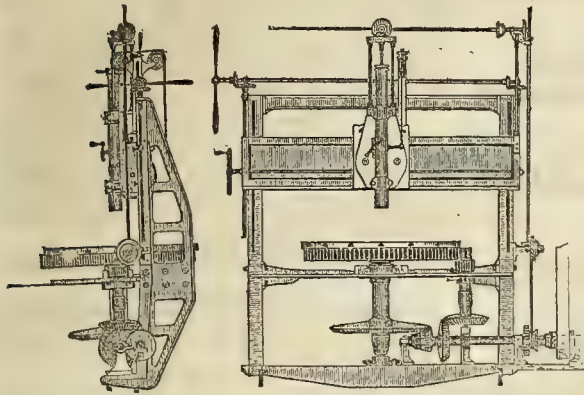
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OF VARIOUS SIZES, TO SWING

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BOILERS OF EVERY DESCRIPTION.

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Levels, &c.,

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

### Mercurial Steam Gauges.

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the MERCURIAL GAUGE, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DURAND, FULTON and TILTON.  
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At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

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RAILROAD BONDS, & CERTIFICATES

Engraved in a style unsurpassed.

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Sole Manufacturers of McGowan's Double Action

### SUCTION & FORCE PUMP

AND

### Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y

### EUROPEAN AGENTS FOR THE RAILROAD

RECORD.—Our European agents are Messrs. Algar & Street, of the London Provincial and Colonial Newspaper Advertisement Office.

No. 11 Clement's Lane,

London, England.

### Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENN'A R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.



**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**  
**WHALEBONE AND STEEL WIRE BRUSHES.**  
**Artesian Well Tubes**  
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**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**  
**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**  
**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS.**  
 For warming air, boiling water and heating ovens.

**ANNULAR**  
**SURFACE CONDENSERS,**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**  
 of any calibre.  
**PATENTED CAST-STEEL TIRES,**  
 For Railway Wheels. Railway Axles and Springs,  
**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

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**STOP COCKS,** Bibb, Flange, Valve, Gauge, and Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes, Couplings, Salt Well, and Hose Joints; Steam Whistles, Distillery Work, General Brassers, Anti Friction Metal, Spelter Solder, and Copper Rivets.  
 Pumps of all descriptions, Brass and Composition Castings, Dixon's best Black Lead Crucibles.  
 Also, Dr. Ransom's Patent Constant Suction Pump for Railroad Water Stations.

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 Publisher of the  
**Railway Map of the Western States,**  
 In Sheet or in Pocket Case;  
 The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
 the LARGE MAPS OF CINCINNATI, and HAMILTON Co  
 Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
**MAPS OF EVERY DESCRIPTION.**

**COLUMBUS, PIQUA, AND INDIANA RAIL-ROAD.**



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
 Piqua, Sept. 13, 1853. Sept. 29-1f.

**Terre Haute & Richmond R. R.**  
  
**Summer Arrangement.**

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to S. Louis 22½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.  
 MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.  
 May 28, 1855. S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.**

**SUMMER ARRANGEMENT.**  
 COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**  
 Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**  
 Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**  
 Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**  
 Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**  
 Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**  
 Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

**SEVENTH TRAIN.**  
 Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.20 P. M.  
 LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.  
 The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena & Rock Island,**  
 BY THE WAY OF THE  
**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in.....15 HOURS.  
 TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN**—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

**SECOND TRAIN**—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

**THIRD TRAIN**—Richmond and Indianapolis Accommodation—at 6.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50  
 " Lafayette.....5 50  
 " Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

M. L. MITCHELL, Agent.  
 The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
 feb. 8-ly D. M. MORROW, Superintendent



**Baltimore & Ohio Railroad.**

**380 MILES BETWEEN WHEELING AND BALTIMORE.**

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,  
ARE NOW SOLD IN**

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

**AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED  
For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**

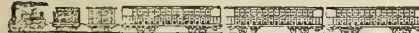
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, and various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 8† Baltimore.

**The Shortest, Quickest and Best  
ROUTE TO LOUISVILLE.**

**MADISON, INDIANAPOLIS, PERU, TERRE HAUTE,  
MICHIGAN CITY, CHICAGO, GALENA, ST.  
LOUIS, AND NEW ORLEANS.**

**OHIO & MISSISSIPPI RAILROAD,**

**ON MONDAY, SEPTEMBER 18, AND UNTIL FUR-  
ther notice, the Passenger Trains will run as fol-  
lows:**

**For Louisville and New Albany.**

Leave Cincinnati at 7.15 A. M. and 3.15 P. M., connecting with the Jeffersonville Railroad at Seymour, and arrive at Jeffersonville, opposite Louisville, at 1 o'clock P. M., and at 9 P. M.

Returning—Leave Jeffersonville at 8.30 A. M., and 3.15 P. M., arrive in Cincinnati at 2.30 P. M., and 9.30 P. M. No delays in connecting with any other Railroad.

**Fare \$2 50.**

**For Indianapolis.**

Leave Cincinnati at 7.15 A. M., and 3.15 P. M., connecting with the Indianapolis and Cincinnati Railroad at Lawrenceburg, for Indianapolis, and all the principal cities and towns of the North and West.

Returning—These trains arrive in Cincinnati at 4.05 P. M., and 9.30 P. M.

**Fare \$3 00.**

**For Lawrenceburg and Aurora.**

Leave Cincinnati at 7.15 A. M., 10.45 A. M., 1.27 P. M., and 5 P. M., stopping at all the regular stations.

Returning—Leave Aurora at 6.50 A. M., 3.15 P. M., 5.55 P. M., and 8.33 P. M., stopping at all the regular stations, and arrive in Cincinnati at 8.10 A. M., 2.30 P. M., 4.05 P. M., and 9.30 P. M.

Freight Trains, for Jeffersonville and all intermediate stations, leave Cincinnati at 9.30 A. M.

For further information see handbills, or apply at the Ticket Office, on Fourth Street, north side, four doors from Vine Street, opposite new Custom-house.

S. S. POST,

Chf. Eng'r and Supt.

Passengers, by leaving their address at the Ticket Office, will be called for by St. Louis and Cincinnati Omnibus Line.

Omnibuses call at all the principal Hotels, for each train.

W. S. BABCOCK, Agent,  
Sept. 5. St. Louis and Cincinnati Omnibus Line.

**1855. New Arrangement, 1855.  
COMMENCING MONDAY, JULY 16.****LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.**

**FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M.,  
10:20 A. M., AND 6 P. M.**

*The Quickest, Shortest, and Most Direct Route, both  
to and from Cincinnati and the East.*

**LAI D WITH HEAVY T IRON.**

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route. CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

**Time via Little Miami Route from Cincinnati to**

To Columbus in.....	3¾ hours.
To Cleveland in.....	8½ "
To Dunkirk in.....	14½ "
To Buffalo in.....	16 "
To Albany in.....	26 "
To New York in.....	30¾ "
To Boston in.....	35 "
To Crestline in.....	6 "
To Pittsburgh in.....	14 "
To Philadelphia in.....	30¾ "
To Wheeling in.....	10 "
To Baltimore in.....	26½ "
To Washington in.....	29 "
To Steubenville in.....	12 "

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

**FIVE DAILY TRAINS.**

**FIRST TRAIN.**—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops at between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

**SECOND TRAIN.**—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

**THIRD TRAIN.**—Wheeling Express, leaves Cincinnati at 10:30 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

**FOURTH TRAIN.**—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

**FIFTH TRAIN.**—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

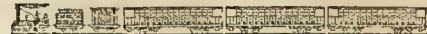
south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

**Peru, Logansport, Wabash, Rochester, and  
Indianapolis.**

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent

Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

**OPEN to Paris.**—Direct Railroad connection with Lexington, Frankfort and Louisville.  
Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Denosville, Butler, Irving, Falmouth, Cullerville, Boyd's, Berry's, Robinson's, Garrett's, Cynthiana, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthiana.....	2 00

**FOR THROUGH TICKETS,**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,

Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices

oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago,  
and St. Louis, by Indianapolis & Cin-  
cinnati Railroad.****VIA LAWRENCEBURG.**

**IN connection with the Ohio and Mississippi Railroad.** Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and La Fayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

Cincinnati, June 12, 1855. SIDNEY RICE, Agent.

**W. G. ATKINSON,**

**Civil Engineer, Surveyor & Draftsman,  
CUMBERLAND, MD.**

**RAILROAD** routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

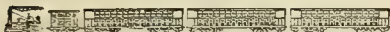
Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared.

marl-y



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
**OLMSTED, TENNYS & PECK,**  
Louisville, Ky.

No. 9-1f

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Railroad Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. **RICHARD NORRIS & SON.****NUGENT'S COLLEGE**

OF

**ENGINEERS & MECHANICS,**

PUBLIC SQUARE, CLEVELAND, OHIO.

**C. NUGENT, C. E., Principal.**

The design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
au.10.

**New Works on Civil Engineering.**

THE Field Practice of Laying out Circular Curves for Railroads. By John C. Trautwine, Civil Engineer.—4th Thousand, in pocket-book form with tucks.

—ALSO—

A New Method of Calculating the Cubic Contents of Excavations and Embankments, by the aid of Tables and 10 Engraved Plates of Diagrams. By John C. Trautwine, C. E.; 2d edition.

Price, one dollar each. Postage on the Curves, five cents; on the Excavations and Embankments, eight cents. For sale by **WILLIAM HAMILTON.**

Hall of the Franklin Institute.

Sept. 21-3\*

Philadelphia, Pa.

**ENGINEERING!!**

The undersigned is prepared to furnish SPECIFICATIONS, ESTIMATES, AND PLANS, in general or detail of all kinds of

**Steam Vessels, Engines, Boilers, Mill Work, &c**  
Particular attention given to the superintending of **LOCOMOTIVES, TENDERS, CARS,**

**And Railway Machinery of every Description,**  
While under construction.

AGENT FOR THE PURCHASE OF, on commission, all articles required for Railroads, Steam Vessels, Locomotives, Engines, Boilers, Machinery, &c.

General Agent for

**ASHCROFT'S STEAM GAUGE, ALLEN AND NOYES' METALLIC SELF ADJUSTING CONICAL PACKING, DUDGEON'S HYDRAULIC JACK.**

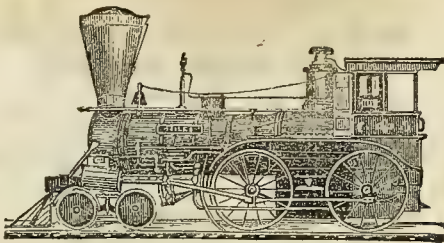
Also, for Water Gauges, Indicators, Steam Whistles,

**CHAS. W. COPELAND,**

Consulting Engineer,

Nov. 5 tf

64 Broadway, N. Y.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shunting, &c. &c.

Feb. 13 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in **AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

**WILLIAM SHERBURNE,**

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtlandt st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr. Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th. 1853. m21-1f

**Indianapolis & Cincinnati Railroad.**

OFFICE—INDIANAPOLIS, IND.

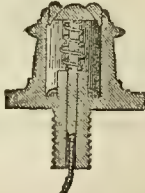
Col. T. A. Morris,..... Pres't  
1y mar. 27.**Indiana Central Railroad.**

OFFICE—INDIANAPOLIS, IND.

I. S. Newman,..... Pres't

**Buffalo & Erie Railroad.**

OFFICE—BUFFALO, N. Y.

G. Palmer, Pres't. Buff. & State R. R. } C. C. Dennis.  
C. H. Reed, Pres't. Erie & North E. R. R. } Supt.  
1y mar. 27.**RICHARDSON'S****PATENT****OIL****CUPS**

For Locomotive and Stationary Engines. For sale by **BRIDGES & BROTHER, Agents,**  
May 17. 64 Courtlandt St., New York.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 **MOORE & RICHARDSON.**

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.****Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T. & E. Wason, Springfield,  
Massachusetts.  
+oc20

**Railroad Car Findings.****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Castings Fitted Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**  
Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight, Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trim-mings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

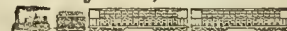
**ALBERT BRIDGES,**

Late Davenport &amp; Bridges, Car Manufacturers,

Cambridgeport, Mass.

**ALFRED BRIDGES,**Late Davenport, Bridges & Co., Fitchburg, Mass.  
+oc6**CAR MANUFACTORY,**

Dayton, Ohio.



**E. THRESHER & CO.,** having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

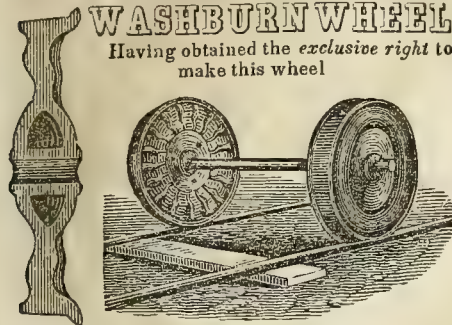
They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan. 25-†



**FULTON CAR WORKS,**

CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

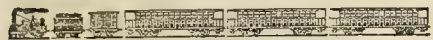


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap. 12

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville

They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

**DAVENPORT, RUSSELL & CO.,****Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 161<sup>st</sup> JOSEPH DAVENPORT.**S. C. THOMSON & CO.,**

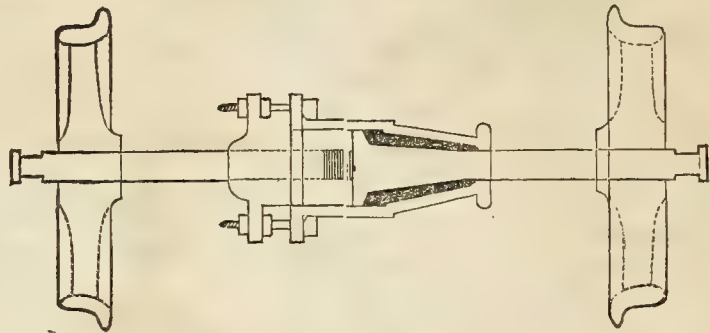
MANUFACTURERS OF

**PATENT PAD LOCKS,**

For Railroad Switches, Merchandise Cars

Stores, Cemeteries, Iron Safes, &c.,

Cor. Railroad Avenue and Market st.,

n. 12<sup>th</sup> NEWARK, N. J.**DENNEY'S DIVIDED CAR AXLE.**

PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

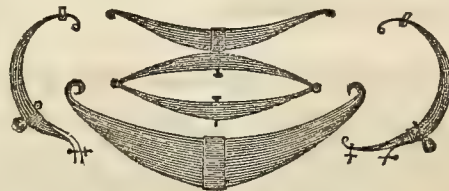
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**

Gap, Pa.

Jy 10<sup>th</sup>**MCDANIEL & HORNER,****LOCO-  
MOTIVE****AND CAR  
SPRING****MANUFACTURERS, WILMINGTON, DEL.**

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

McDANIEL &amp; HORNER.

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

**References.**

NORRIS BROTHERS, Locomotive Builders, Philad.

A. C. GRAY, Prest. New Castle Manuf. Co.

U. WELLS, R. R. Car Manuf. Petersburg, Va.

I. R. TRIMBLE, Supt. Philad. R.R. Co.

May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.

EMERSON FOOTE, Supt. M. &amp; W. R. R. Macon, Ga.

THOMAS DOUGHERTY, Master Mach. do.

THOS. SHARP, Supt. R. F. &amp; P. R. R. Richmond, Va.

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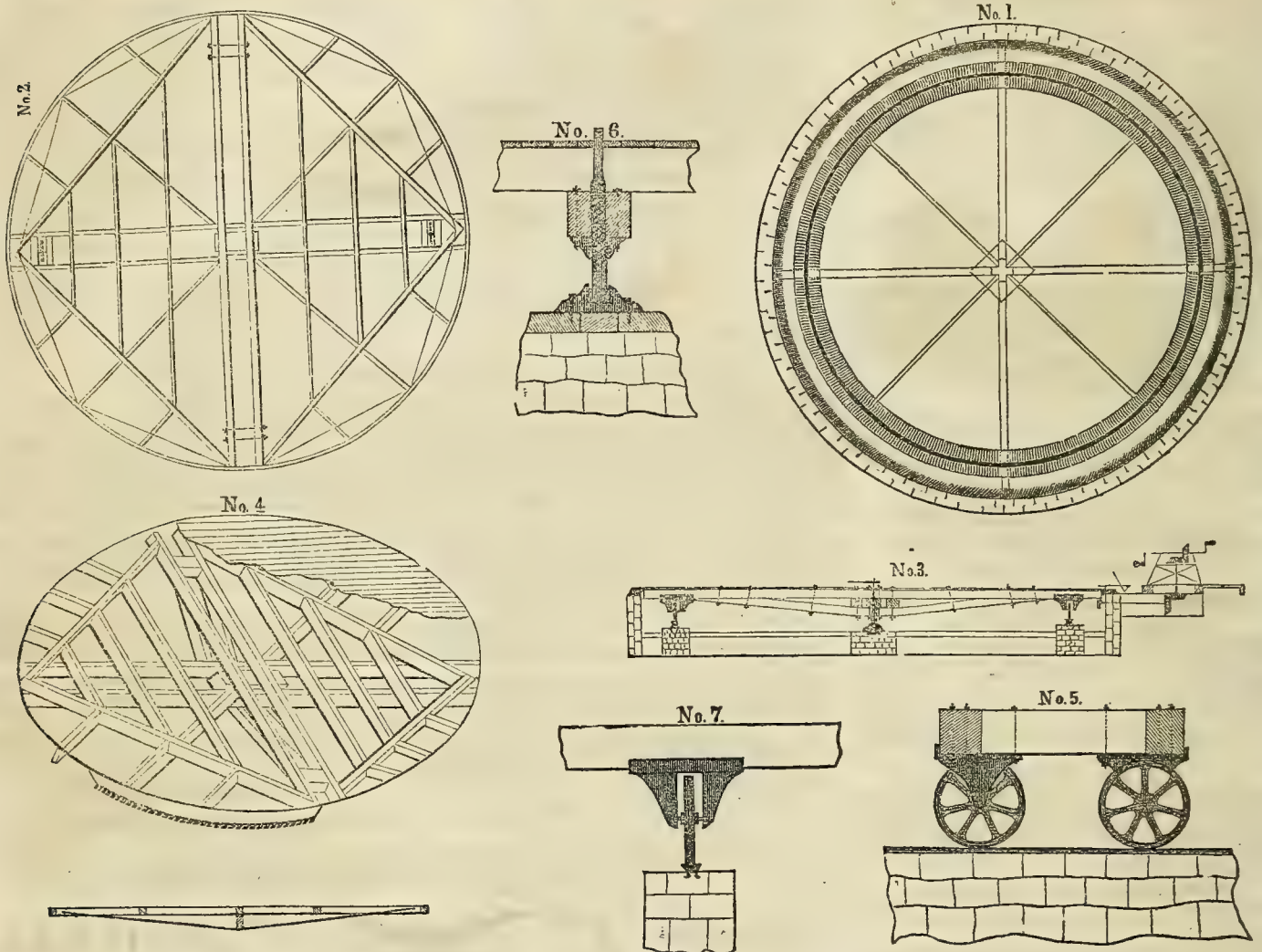
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## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.

Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Sup't, Marion, O.  
Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.

Wilmington & Raleigh Railroad, North Carolina.  
Central North Carolina Railroad.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.  
Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

**Fig. 1**, of the above cut, represents the foundations, consisting of *Bank and Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the store track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

**Fig. 2**, shows the framing.

**Fig. 3**, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

**Fig. 4**, gives a perspective view of rim, segments, decking, etc.

**Fig. 5**, is an end view of the main trucks, with pedestals and wheels.

**Fig. 6**, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

**Fig. 7**, shows a cross section of track wall, well, and pedestal.

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# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING,.....AUGUST 2, 1855.

E. D. MANSFIELD,

May be found at the office of the *Railroad Record*, 167 Walnut st., between the hours of 11 A. M. and 1 P. M.

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ACKNOWLEDGEMENTS.—De Bow's Review, the Journal of the Franklin Institute, Mining Magazine, and Graham, for August, are all received. Hunt's Merchant's Magazine not yet arrived.

VOL. III.—No. 23.

### CAPITAL INVESTED IN RAILWAYS, AND THE RETURNS MADE UPON IT:

The recent panic, as to railroad stock, was one of the most unreasonable that ever seized the public mind. Unreasonable, we mean, because nearly all the dealers in railway stocks and securities are well informed as to the facts, which alone make the basis of a safe calculation. There are a great number of unfinished roads, and they should be thrown out of the account; and there are many more that are called finished, but have not got beyond the point at which it is absolutely necessary to expend new capital, in order to give them efficiency. Now, in making an estimate of railway property, as a paying investment, neither of these classes should be taken into view; because the machine on which the profit is to be made is not complete and in working order. Of the complete railways of the United States, considered as a branch of business, we know of no complaint which can fairly be made against them. As an investment of capital, property in railways is as safe and profitable as any that can be made in any other business.

We give, below, two of the fairest examples of railway investment that we can find:

#### 1. RAILWAYS OF MASSACHUSETTS.

Investment.....	\$54,469,689
Nett Profits.....	3,331,000
Rate per cent.....	6 per cent.

Now, it is true, that 6 per cent. is not very tempting to a speculator; but, it must be remembered that this is an average; that it is dividend on the good, bad, and indifferent. Of the twenty-one roads included above, five divided nearly 8 per cent., and eight have returned, in dividends, to the stockholders more than the original capital. Now, when we look to the general averages of trade; to the fact that railroads have been most expensive in New England, and that most of these roads have just commenced operation, we cannot help remarking that this average of 6 per cent. is, after all, a very encouraging result.

#### 2. RAILWAYS OF NEW YORK.

Investment.....	\$130,000,000
Nett Profits.....	8,500,000
Ratio per cent.....	6½ per cent.

This is a little better than Massachusetts; but it must be recollected that in New York are several railways which yield nothing at all, and that more than half the cost of the roads is in the shape of debt, the interest of which must be paid before any dividend can be made. The debt, stock, interest, etc., stood as follows:

Debt.....	\$70,000,000
Stock.....	60,000,000
Interest on Stock.....	4,900,000

This interest has been punctually paid, by the companies. Hence, it is, that some of them have been unable to pay dividends; yet, economy of work, and the careful management of business will soon enable them to

pay a fair dividend, and bring their stock to par in the market.

The two great western lines of New York, the Central and the Erie, have consumed more than half the railway capital of the State. The result, on the two roads, for the current year, will be about as follows, viz:—

Cost.....	\$70,000,000
Stock.....	39,000,000
Debt.....	31,000,000
Income.....	10,000,000
Expense.....	4,500,000
Nett Income.....	5,500,000
Interest on Debt.....	2,170,000
Profit on Stock.....	3,330,000
Profit per cent.....	8½ per cent.

It is true, the largest share of this goes to the Central; but we are not comparing the roads only so much as showing certain general results. The general result is, that these roads, built at such an immense cost, are highly profitable, and that so enormous a sum as *seventy millions of dollars*, invested in these works, really parallel to each other, has been safely and securely invested. If we go to western roads; there are some that pay—will pay 10 per cent.; such, for example, as the Little Miami, the Xenia and Columbus, the Columbus and Cleveland, the Michigan Central, the Southern Michigan, the Galena and Chicago, and various others. We conclude, therefore, that a fair investigation of the results of railway investments will prove that they are as safe and profitable an investment of money as any that can be made.

In reckoning the value of railroad property, the continual increase of income, and if properly managed, of profits, have been sufficiently counted.

As an example of what that is we give the following aggregate receipts of the *Erie and Central Roads* of New York, for ten years. The amounts are in round number, but sufficiently near, to make a comparison:—

In 1850.....	\$3,400,000
In 1851.....	5,500,000
In 1852.....	7,000,000
In 1853.....	8,500,000
In 1854.....	10,000,000
In 1855.....	11,500,000

The last is partly estimated. The increase, per cent., has been as follows:—

1850 to 1851.....	30 per cent.
1851 to 1852.....	26 “ “
1852 to 1853.....	24 “ “
1853 to 1854.....	18 “ “
1854 to 1855.....	15 “ “

It is not probable that this increase will continue in the same degree; but it is quite certain, that dating from 1852, when the Erie Road was completed, the income of these two roads will be doubled. Taking 50 per cent., as the expenses, which is about the fact, then the nett profits will increase from \$3,500,000 to \$7,000,000; or from an interest of 7 per cent. on \$50,000,000 to an interest of 7 per cent. on \$100,000,000. In this fact the stockholders have a guarantee of safe, and profitable property.



# PUGET'S SOUND—TRADE OF ASIA—EFFECTS OF A RAILROAD COMMUNICATION.

Among the consequences of the Government explorations of railroad routes to the Pacific Coast, is that of a much better knowledge of the resources of our country, and particularly of that part which lies beyond the Rocky Mountains. We have received from the War Department all the documents published by Government on this subject; and they are full of information and instruction. To digest and review them is out of our power; but we shall endeavor to give occasionally a glance at some of the most important topics. We have given recently an analysis of the results of the railway surveys; and we shall now notice one of the most interesting spots on the Pacific Coast of America, and one likely to play a very important part in the future commerce of the world. We mean

## PUGET'S SOUND.

It will be recollected that by the Oregon Treaty, our northern limits on the Pacific were the Straits of Fuca. These open out into Puget's Sound, which is an interior basin of deep water and rich islands, and good harbors, with abundance of coal. From the head of the Straits, Puget's sound is about sixty miles in length; but, from Cape Flattery of the Pacific, to the head of the sound, is about 160 miles. From Gray's Harbor, on the Pacific, across the land to the Sound, is only forty miles. Thus we see that Puget's Sound is a great interior harbor, with every defence, resources, and facility for the Pacific Trade. It has, in fact, great and decided advantages over San Francisco.

Let us look at some of the results which will flow from having a Port on Puget's Sound, connected by railways with the interior of the U. States. We may here remark, that it does not follow that because a *direct* railway from Puget's Sound to St. Pauls would, for the present, be impracticable by means of its cost, that therefore, there would be no railway to Puget's Sound. On the contrary, wherever a Pacific Railway terminates, there will be a continuation from that point to Puget's Sound. Sooner or later, therefore, we may consider it settled, there will be a railway to the interior. This being promised, let us consider for a moment the utility of that measure.

1. THE RESOURCES OF PUGET'S SOUND.—Puget's Sound is in the parallel of 48 deg., and has a shore-line of 1,500 miles, and a surface of probably 15,000 square miles. It has capacious harbors and roadsteads, accessible, commodious, and entirely land-locked, and particularly adapted to steam navigation. The harbor of Seattle has fifty feet water, at low tide, and is large enough to contain any number of vessels. It is evident, therefore, that America does not contain a more perfect,

safe, and capacious rendezvous for vessels than Puget's Sound.

In addition to this, Puget's Sound contains resources for vessels, not possessed by any other harbor on the Pacific. It has COAL and LUMBER, in great abundance. These are the two great wants of Steam Navigation. In Puget's Sound, therefore, all the commercial navies, which may be necessary to the American-Asiatic commerce, from this to the end of the world, may be built, supplied, sheltered, and defended.

2. POSITION FOR THE ASIATIC TRADE.—The Straits of Fuca being in 48 deg. of latitude—San Francisco in 36 deg.—and Panama 10 deg.—it is very obvious that the passage across the Pacific is shorter from Puget's Sound, than it is from San Francisco, and thousands of miles shorter than it is from Panama. If the convenience, (if not necessity) of vessels *fitting out* at Puget's Sound be taken into view, it is obvious that, in future time, the great port of the Pacific, for the Asiatic trade, must be on Puget's Sound. The following are the relative distances from New York, Cincinnati, and Liverpool, by Puget's Sound, to Shanghai (China), as compared with the old routes; viz:

### NEW YORK TO SHANGHAI.

Via Cape Horn,.....	21,000
Via Panama,.....	11,000
Via Puget's Sound,.....	8,300

### CINCINNATI TO SHANGHAI.

Via Cape Horn,.....	21,800
Via Panama,.....	11,800
Via Puget's Sound,.....	7,500

### LIVERPOOL TO SHANGHAI.

Via Cape Horn,.....	20,000
Via Panama,.....	12,000
Via Puget's Sound,.....	11,000

It is perfectly obvious from this that a railway once constructed through the interior of the United States to the Pacific, the trade of both America and Europe, with China and Japan, will take the route by Puget's Sound. It is also obvious that such interior cities as Cincinnati and St. Louis will have great advantages for trade with Asia. They will be nearer and they will have greater facilities than any Atlantic towns for manufacturing whatever fabrics may be necessary to that trade.

The Northern Route will have great advantages over any other. The great lakes already furnish a grand canal over half the continent; while the Ohio and the Mississippi are navigable still further. By the railway to the Pacific the City of Jeddo, in Japan, will only be 5,500 miles from Cincinnati, and Shanghai (China) only 7,500. By steam all the way,—goods can reach Cincinnati, from Japan, in *twelve days*! The opening of this route would make Cincinnati, St. Louis, Louisville and Chicago, *great importing cities*, trading as directly with Jeddo, and Shanghai, as New York does with Liverpool or Liverpool with Canton, and this result will certainly come about. Such a fact cannot

long stand up before our eyes, without exciting the commercial world if not the government, to the completion of the Pacific Railway.

3. MATERIALS FOR AMERICAN-ASIATIC COMMERCE.—There are many articles exported to Asia, from Europe and this country. Among these are coarse cotton goods. The United States export coarse cotton goods to the amount of three millions per annum; but, the great export of this article is from Great Britain. The British cotton goods, however, are made from American cotton; and it will be seen, at once, that in a direct trade with Asia, the American manufacturer will have a great advantage. At present the cotton is carried from the Southern States to Liverpool, manufactured in England and then carried 14,000 miles to Shanghai.

With a railway to the Pacific, this cotton would be carried to New England; thence, by Puget's Sound, to Shanghai. The American manufacturer would have 8000 miles of distance in his favor. But cotton is not all; American ingenuity has already invented many articles which both Europe and Asia want; and it cannot be doubted that an immense trade will spring up, between Asia and America; especially the *interior* of America—when a Pacific railway shall supply the means of speedy and safe transit across this continent. When this commerce shall be established, there will arise, on Puget's Sound, a port hardly second to any in the world. The possession of this admirable inland harbor of the Pacific is one of the immense benefits secured by the Oregon Treaty. No people are more interested in it than those of the central West.

## OHIO AND MISSISSIPPI R. R.;—ST. LOUIS END;—MR. BACON AND THE SALE.

It seems, from the St. Louis papers, that Mr. Bacon's trustees or creditors have actually offered the road for sale, under the Trust Deed for \$1,158,000; and that, unless the Courts interfere, it will be sold in a very short time. To our mind this seems like a very sharp proceeding—what the lawyers call "sharp practice." The city and county of St. Louis, with divers individuals, must hold about \$1,500,000 in stock, and if the road is sold they lose the whole of it. It is true the road will be sold, subject to 1st and 2d mortgages, making something over \$2,100,000, so that the road must bring about \$3,200,000 in order to cover Mr. Bacon's debt. But, it is also true that the entire stock will be lost. It appears to us that this is a very harsh as well as sharp proceeding, and one which a Court of Chancery would not fully sanction.

The following points appear to present difficulties in the case:—

1. It is admitted that the company owe



We see it proposed at Buffalo to tunnel the Niagara river by a tunnel 2500 feet long. The material to be passed through is the rock which underlies that whole region. We had supposed that the experience of the English in tunneling under the Thames was sufficient to demonstrate the inutility of tunneling rivers. However it is not every projected tunnel that is sure to be built. There is a charter for one or more tunnels under nearly every large river in our country and thus far people have been contented with charters and will probably continue so.



## EDITORIAL CORRESPONDENCE.

MY DEAR RECORD:—The last news you had from me was at old Fort Cumberland among the Mountains of Maryland. The road from Fort Cumberland to Baltimore maintains its reputation for beautiful scenery and passes at the same time through the richest portion of the State. The crossing of the Potomac at Harper's Ferry and the National Armory there, with all the wild scenery belonging to the passing of the Potomac through the rocky ridge make this spot one of peculiar interest. The Baltimore and Ohio Railroad was originally laid with the U rail but I observe that as this wears out they are putting down in its place a very heavy T rail. It is better on many accounts than the U rail and will probably last longer.

Baltimore, one of the great seaports of the Atlantic coast, is a place of considerable business and what attracts the attention of the stranger has all the appearance of thrift and enterprise which has made New York the metropolis of this country.

The passenger depot and other arrangements for the transaction of railroad business are all on a large scale and furnish admirable facilities. The buildings are ample, I did not learn their exact dimensions but judging from the time occupied in walking through them, they must be among the most extensive in the country. Baltimore permits to her railroads what few large or even small cities allow, a *direct connection* between the roads themselves. Instead of being compelled to be hauled through the city limits in an uncomfortable omnibus, jolting and rattling and pitching as if the driver were determined to give you exercise enough to pay for the ride, you are comfortably carried in a car and thus transferred from depot to depot. In this respect Baltimore sets a good example to Erie *et id omne genus*. It is to be hoped that the narrow and illiberal policy, which has hitherto characterized the dealings of *so called civilized* corporations with the best and in many cases the only means of communication with the christian world and without which they would soon relapse into their primitive barbarism, has had its day and will exist no more. It is certain that it will not where men have learned that both interest and liberality dictate a generous policy.

I do not find the machine works of this city *very* busy. Much of the dullness is undoubtedly owing to the season of the year but more probably to the year itself. Many of the Baltimore machine works will compare favorably with other establishments in various parts of the country. Our friend J. Hopkinson Smith is turning out his spikes in large quantities. He manufactures only to order and does a much larger business than one would suppose in this speciality.

The Washington Monument is a magnifi-

cent column but I do not much admire the taste that dictated those ornamentless grounds that surround it. More than half its effect is lost upon the traveler by its stiff and tasteless accompaniments. Perhaps they wished this monument to stand *alone*, stately and grand as the genius of him it is intended to memorialize. But they forget that Washington was surrounded with a galaxy of those bright, beautiful stars of history whose glory only rendered his own the more brilliant.

From Baltimore I rode on the Philadelphia, Wilmington and Baltimore Railroad to Philadelphia. This is an excellent road, laid with T rail and well kept up; it rides easy and the trains make good time. I have not the figures at hand at this moment to show; but there must be a vast economy in operation where a road is well maintained; its ballasting thoroughly performed, every rail kept in its true position and nothing left for tomorrow which should be done to-day. When we consider that the passage of every car over a loose rail is like the striking of a heavy blow both on the rail and wheel—a blow equal in intensity to the weight of the car, say 10 tons multiplied by its velocity, the wonder will be that inefficient management can be tolerated for a day on any road, even those which do the least business.—Certain it is this matter is receiving great attention at the east. Eastern superintendents are becoming convinced that for them the policy must be to reduce expenses and they look for increased dividends rather in this way than in the increase of business. We believe that business will increase also, but most certainly commend economy wherever we see it carried out. A small saving in expenditure is equivalent to a large increase in business. And this is a lesson that all must learn sooner or later.

The directors of this road have not abandoned their design of building a magnificent bridge across the Susquehanna. The object to be gained is the saving of time and the facility for rapid transportation, and it is well worth securing. As we entered Philadelphia late I can tell you nothing to-night that would be interesting. The depot that we entered is a fine brick structure with offices for the President, Secretary, Treasurer and Superintendent in the second story of the front building. The building itself has some pretensions to beauty. This matter of appearance is one which adds a little to the pleasure of traveling. How much pleasanter to enter a neat, clean and spacious depot than one built at a time when heads and arms were thought to be of as little importance as foot balls—dark and gloomy and all its approaches so narrow that the traveler is in danger of being squeezed even if he remain sacredly in position. We are glad to see spacious depots with ample approaches.

## SALE OF THE PUBLIC WORKS OF PENNSYLVANIA.

Our readers were reminded a short time ago of the proposed sale of the main line of public works belonging to the State of Pennsylvania. On the 24th, the day appointed, about three hundred persons assembled at the Exchange Philadelphia. On the part of the State there was present Gov. Pollock, Secretary Curtin, Attorney General Franklin, and the Commissioners appointed in pursuance of the Act of the Legislature. The Auctioneer after stating the terms of the sale as published, put the works up at fifteen million dollars and finally descended to the lowest limit seven and a half million without receiving a single bid. The sale was adjourned sine die.

We do not like the mode of bidding adopted but the result would have been the same in any event. We are at a loss to account for this result as it was supposed that there were several competitors in the field. It is true that this is an unfortunate time for operations of such gigantic magnitude. But there must have been some other reason than the *times* for the absence of a bid on these works.

## Railroads.

## GREENVILLE RAILROAD.

This road has for some time past been in suit with the New York bondholders. Some time since John D. Elliott, Esq., formerly superintendent of the New York and Harlem Railroad was sent out by the bondholders to take possession of the road and operate it for the bondholders. Difficulties have been thrown in the way of the accomplishment of this design and we learn that this matter has been finally compromised by the bondholders consenting to withdraw suit for foreclosure on condition that a new Board of directors be elected. This was assented to and the old Board resigned. The following is the list of the new Board.

Peter Odlin, Dayton; Daniel Beckel, Dayton; Adam Speice, Dayton; Jas. M'Daniel, Dayton; Herman Gebhart, Dayton; David Studybaker, Greenville; John Whary do.; Jas. Thomson, N. Y.; Robert Bayard, N. Y.; Frederick Depeyster N. Y.; Frederick S. Foster, N. Y.; W. D. Thompson, N. Y.; John D. Elliott, N. Y.

Jas. Thompson, Esq., of New York, was elected President of the new Board; H. Gebhart, Treasurer; John D. Elliott, Superintendent; John L. Miller remains as Secretary of the Company.

UPPER CANADA.—It is stated that the Branch of the Great Western Railway from Fairchild's Creek to Brantford, has been surveyed, and that the construction of it will soon be commenced.



**BALTIMORE AND OHIO RAILROAD.**

At the regular monthly meeting of the Board of Directors held yesterday, the official report of the business of the road for the month of June was read. The revenue for the month has been as follows:

	Main stem.	Wash Br.	Totals.
For passengers.....	\$ 50,404 71	\$23,673 73	\$ 74,078 44
For freight.....	291,063 50	7,143 72	298,207 22
	\$341,468 21	\$30,817 45	\$372,285 66

Compared with June, 1854, these receipts show a general increase in all departments of the business of the road, viz:

	1854.	1855.
Passengers.....	\$ 45,694 71	\$ 50,404 71
Freight.....	271,207 92	291,063 50
	\$316,802 63	\$341,468 21
		316,802 63

Increase on main stem.....\$24,665 58

On the Washington Branch there has been a decrease of receipts, as compared with June of last year, of about one thousand dollars.

The prospects of the road have undoubtedly at no period in its history, been so promising as at present, and when the great decrease of way-freight during the past month, as compared with the corresponding month of last year is taken into consideration, the increase is most satisfactory, arising as it does mainly from the heavy accession to the passenger and through freight business.

The official report of the business of the road for the month of June, which was read to the Board, shows that the transportation eastwardly into the city of Baltimore, of the principal articles, was as follows:

Bark.....	628 tons.
Coal.....	46,569 "
Fire Brick.....	105 "
Firewood.....	"
Flour.....	36,652 bbls.
Grain.....	913 tons.
Granite.....	379 "
Iron.....	401 "
Iron ore and manganese.....	810 "
Lard and Butter.....	65 "
Leather.....	235 "
Cotton.....	— bales.
Wool.....	1,089 "
Flaxseed.....	25 casks
Soap Stone.....	198 "
Lard Oil.....	256 "
Lumber.....	391 tons.
Lime.....	165 "
Live Stock, viz:	
Hogs.....	10,879 head.
Sheep.....	10,004 "
Horses and Mules.....	77 "
Horned Cattle.....	1,085 "
Meal and Shorts.....	54 tons.
Pork and Bacon.....	2,731 "
Tobacco.....	2,918 hhds.
Whisky.....	5,240 bbls.
Miscellaneous.....	459 tons.
Hay.....	1 "
Hemp.....	76 "
Flour from Washington Branch.....	2,375 bbls.

We learn that John M. Garrett, Esq., was yesterday elected a Director to fill a vacancy that has occurred in the Stockholder's Directory by resignation of Andrew Gregg, Esq.—*Baltimore Am.*

**M. & M. RAILROAD—GOOD NEWS.**—A telegraphic despatch was received here Saturday night, from Mr. CATLIN, President of the Milwaukee and Mississippi Railroad, announcing the sale in New York of the \$600,000 eight per cent first mortgage bonds of the Company at satisfactory rates. This ensures the completion of our Pioneer Railroad to the Mississippi within a twelve-month. Mr. Cook, one of the contractors, leaves tomorrow for New York to purchase the additional iron required. This is great news for our City and State.—*Mil. Sent.*

**DETROIT AND MILWAUKEE RAILROAD.**

The Directors of this railroad published in the *Detroit Advertiser* a statement addressed to the stockholders, which shows a gratifying state of things along the line with good promises of early completion.

They state the amount already expended, and then add the following:

For the money you have 25 miles of road, from Detroit to Pontiac, finished, and well stocked, and in complete and successful operation. You have 25 miles more, or the second division, from Pontiac to Fentonville, so far advanced that it will only require, by the estimate of your Chief Engineer, \$51,698 to put it in running order. You have the work so far advanced on the third division, from Fentonville to Owasso, 28 miles, that it will only require to finish the same an expenditure of \$142,601 10.

It is fully expected the second division of your road will be opened in July, and the third division in September. You will then have in operation seventy-eight miles of road, which will yield you, according to the best estimate we can make, a sum sufficient to pay all of your interest, and a fair dividend upon the stock, expended up to that point.

A contract has been entered into with N. P. Stewart and others, to finish and put in complete running order the road from Owasso to Lake Michigan, for three million five hundred thousand dollars. By the terms of the contract they are to receive all the stock subscriptions made on the line between Owasso and Lake Michigan at par, and to take in stock such further sum as will be equal to one-half of the contract price, and the balance is to be paid in the seven per cent. bonds of the Company at par. Under this contract there has been expended between Owasso and Ionia, a distance of 58 miles, \$143,066.51.

There has been paid in upon stock subscriptions, \$838,000. In case no other or further subscriptions to your stock is obtained, that account, including all which is to be issued to the contractors and upon which they cannot vote until their work is completed, and accepted, will stand as follows, viz:

Stock account.....	\$2,755,583
Bonds issued and to be issued by the Detroit and Milwaukee Railway Company.....	3,000,000
Bonds issued by Oakland and Ottawa Railway Company before consolidated.....	224,834
Total.....	\$5,980,417

A meeting of the stockholders and bondholders of the Sandusky, Mansfield and Newark Railroad Company took place at the Astor House, New York, on Tuesday last. An arrangement was agreed upon by which the first mortgage bondholders are to sacrifice two years' interest, and the second mortgage holders are to take 50 per cent. of their stock at par. The entire debt and stock now amounts to \$4,000,000. This arrangement is designed to reduce the bonds and stock to \$2,400,000, to wit: New series of bonds to be given on the whole, and in place of the present, \$1,290,000. Stock reduced \$1,110,000—\$2,400,000. It is supposed the road will earn enough to pay interest and dividends on the above. The preliminaries for this arrangement were ordered to be carried out. This was one of the first roads constructed in the West, and was built in detached pieces by different companies, which have lately been consolidated. It was laid at first with flat bar rail, and has had to contend with difficulties from the beginning.

**CINCINNATI AND MACKINAW RAILROAD.**

We notice lately that the directors of the above Railroad are making another vigorous effort to enlist a further amount of means to carry on this great work. Mr. Gunkel, the President, is a man of uncommon energy, and is fairly awakened to the interests of the project, and we expect, through his efforts and the efforts of the able Board of Directors, that such an interest will be awakened along the line of road and other points benefited, as soon to place it under contract. Toledo is now ready we think to lend its influence at least, if not its purse, to the pushing forward of this great work. Since the completion of the Toledo and Illinois road to Fort Wayne she at least has this interest in a measure removed, and must now see that the Mackinaw road is the next most important work as an adjunct for her benefit. This road, when completed, will make the speediest communication with Cincinnati that can possibly be had. Leaving Toledo in a south-west course we run to a point immediately north of Cincinnati on the Toledo and Illinois road, which is about nine miles south-west of Defiance, at the point where the Mackinaw road crosses; from here we have almost an air line track due south to Cincinnati with a lighter grade than can be obtained by any other route, and certainly at much less expense, running through one of the best grain producing portions of our State, and where they have no direct line of communication with this city. This road is already completed as far north as Greenville, the county seat of Dark county, from there 22 miles due north, it passes through Celina, the county seat of Mercer county, a flourishing village, Vanwert, the county seat of Vanwert county, 22 miles, Paulding, the county seat of Paulding county, 18 miles, from thence 5 miles to the junction of the Toledo and Illinois Road, making a distance now unfinished of about 69 miles, of a perfect air line track, with no expensive grading or bridging, with a grade in no place exceeding twenty feet to the mile; we confidently expect to see the cars passing over this road within a year from this time, which will add materially to the trade of our rapidly increasing city, we hope that the Toledo and Illinois Road will make such an arrangement as will bring freight through to this place without transshipment.—*Toledo Com. Rep.*

**N. E. AND S. W. ALABAMA RAILROAD.**

The Tuscaloosa Monitor says that on Monday night last, Dr. Garland addressed the citizens of this place at the Court House, on the subject of the N. E. & S. W. Railroad. He gave a gratifying account of the success of his negotiations with iron manufactures, and explained the terms of three proposed contracts offered to the company for furnishing iron to clothe the road. A southern manufacturer proposes for a bonus of five hundred thousand dollars, to set up iron works on the line of the road, and turn out iron of approved quality for sixty-dollars per ton, to be paid for in certificates of stock at par value. The bonus of five hundred thousand to be paid by installments; one hundred thousand as the works progress to completion, and thirty dollars thereafter for every ton of iron turned out, until the entire sum of five hundred thousand dollars in cash is paid; after which all payments are to be made in certificates of stock. A Northern manufacturer of great experience, Stephens, of Pennsylvania, offers the same proposition, in case the Southern



manufacturer fails to raise the necessary capital.

If the company reject this proposition, Mr. Stephens offers to build the iron works on the line of the road, and furnish all the iron at forty dollars per ton, provided the company will pay him the entire sum in advance—twelve hundred thousand dollars—and deed to him the reversion of the iron works, iron lands and coal lands, after the completion of the road.

The last proposition is thought to be the best of three, for the interest of the company; but it is feared that the company may not be able to extend their cash subscriptions, now six hundred thousand dollars, up to twelve hundred thousand.

The first offer, however, is better than the friends of the enterprise could have hoped for, and considering that the grading is all provided for, we cannot see why the enterprise should not go successfully through. Evidently it *must* succeed if those who have subscribed stock be faithful to their undertaking.

#### TOLEDO AND ILLINOIS RAILROAD CO.

At a recent meeting of the stockholders of this Company, the following named gentlemen were elected Directors, viz: Messrs. W. Baker, M. Johnson, W. Colburn, I. C. Colton, E. C. Litchfield, A. Boody, and J. R. Osborn.

We learn that the Directors met to-day, and elected the following officers of the company for the ensuing year, viz: Wm. Baker, Pres't; I. C. Colton, Vice Pres't J. R. Osborn, Secretary and Treasurer; E. Whitehouse, Assistant Treasurer; W. H. Burrows, Superintendent.

Mr. Burrows, as we are informed, has lately been appointed Superintendent of the New York Central Road, and brings with him a handsome reputation for energy, tact and business capacity, in the management of the road which he has recently had in charge. The Toledo and Illinois Company are fortunate in procuring his services in opening their line of road for business.

We are informed that there is less than 20 miles of track to be laid between the cities of Fort Wayne and Toledo. The grading, bridging and masonry, between these points are all completed, and we are assured that the delay which the unusual rains of this month have caused, will not be over ten days from the fourth.—*Toledo Blade*.

#### MEMPHIS AND CHARLESTON RAILROAD.

Within the present year (1855,) says the *Charleston Courier*, the Road will be completed and in operation on the Eastern division to the Mississippi line, one hundred and fifty-four miles; and on the Western division, from Memphis to Big Hatchie, seventy-five miles, and Summerville Branch thirteen and a half miles—together eighty-eight and a half miles; making in the whole two hundred and forty-two and a half miles that will be in full operation before the 1st January, 1856, and the nett profits of the hundred and nine miles of the Road now in use, (and it is likely to be more,) would make the net income from the Road for the ensuing year over \$500,000, which will be so much added to the capital—and thereby reducing the present deficit by so much—as all the earnings of the Road will be applicable to its construction until it is finished.

The remaining seventy miles is partly grad-

ed and under contract to be graded—the iron, which is all purchased from a house in this city, to be laid down and track completed ready for the engine before the 1st day of January, 1857; then making, in its whole length, two hundred and eighty-eight and a half miles of the best built, most economical and productive Road in the United States.

CHICAGO AND BURLINGTON RAILROAD.—The earnings of the Chicago and Burlington Railroad for the month of June, 1855, were—

For Freight,	\$106,393 00
Passengers,	41,167 27
Mail Service received,	3,728 57
Total,	\$151,288 84

The proportion to each road forming the line is as follows:

	Freight.	Passengers.
Galena and Chicago Union,	\$29,342 47	\$6,033 71
Chicago, Burlington & Quincy,	57,903 65	17,601 11
Central Military Tract,	23,707 93	12,659 20
Peoria and Oquaka,	2,438 95	4,873 25
Total,	\$106,393 00	\$41,167 27
	Mail Ser.	Total.
Galena and Chicago Union,	\$28,376 18	
Chicago, Burlington & Quincy,	\$3,728 57	79,233 33
Central Military Tract,		36,367 13
Peoria and Oquaka,		7,312 20
Total,	\$3,728 57	\$151,288 84

MICHIGAN SOUTHERN RAILROAD.—The earnings of the Michigan Southern and Northern Indiana Railroad for June were:

Passengers and Mail,	\$149,961 91
Freight and miscellaneous,	98,408 80
Total,	\$248,370 71
Earnings, June 1854,	214,835 89
Increase,	33,535 89

CLEVELAND AND PITTSBURG RAILROAD.—The earnings of the Cleveland and Pittsburg Railroad for the past month of June were as follows:

For Passengers,	\$29,078 73
Freight,	33,999 40
Mail, Express, etc.,	1,941 78
Total,	\$56,019 91

The total earnings for the month of June of last year were \$47,729 74, thus showing an increase this year of \$8,290 17.

NEW YORK CENTRAL RAILROAD.—The following is a comparative statement of receipts from passengers and freight during the month of June in 1854 and 1855:

	Passengers.	Freight.	Total.	Increase.
1855	\$320,549 33	\$201,160 75	\$521,710 08	
1854	315,148 57	161,439 03	476,578 60	
	\$5,400 76	\$39,730 72	\$45,131 48	\$45,131

JACKSON AND ADRIAN R. R.—The *Jackson Patriot* states that the necessary stock has been taken by the Jacksonians to organize a Company and build a road from that village to Napoleon in that county, to which point the Manchester Branch of the Southern Road is to be completed very shortly. There is an undissolved injunction which prevents the Southern from completing their Branch to Jackson, but by this plan, that difficulty is sought to be removed.

TOLEDO AND ILLINOIS R. R.—The *Defiance Democrat* says that regular trains will be passing over this road between Toledo and Defiance in about ten days. Everything is in readiness, except the laying of a few miles of track, which would have been done before this time, but for the recent heavy rains. A locomotive is now upon the road at Defiance, carrying iron both ways, and otherwise aiding in the completion of the road.

ILLINOIS CENTRAL R. R.—A celebration took place at Dunleith, on July 18th, to mark the completion of the Illinois Central R. R. to that place.

## Miscellaneous and Mechanical.

### LENGTH OF LIFE.

M. Flourens, a French savant, has broached and sustained by ingenious argument a most comfortable theory to that infinite number of people who notwithstanding the trials and troubles of this life, are well satisfied with the world and have no desire to quit it a moment sooner than possible. He enlarges the limit of life from three score years and ten to one hundred, and makes those who do not reach that patriarchal age the victim of improprieties if not of excesses—a theory which while it may be pleasing to the hope of long life of the living is not very complimentary to the vast majority of the dead who have failed to enjoy half the years they were entitled to. M. Flourens divides life into six stages, and though the division is not a new one, yet the classification he makes is decidedly so. He classifies the stages of life as follows:—The first ten years of life are infancy, properly so called. The second ten is the period of boyhood. The first youth is from twenty to thirty, and from thirty to forty the second youthful term. The first manhood is from forty to fifty-five. The second from fifty-five to seventy. Thus according to the new system we are still boys at twenty, youths at forty, and at fifty-five enter upon that period which M. Flourens designates as the age of strength the manly period of human life. After seventy has been reached old age begins; the first period of which extends from seventy to eighty-five, and the second commencing at eighty-five. The theory is confirmed by Buffon, who asserts that "the man who does not die of accidental disease, lives everywhere to ninety or a hundred years of age." Buffon investigated with great labor and patience the theory of animal life. He concluded that "the total duration of life may be estimated to a certain degree by that of the duration of an animal's growth—man increases in height till his sixteenth or eighteenth year, and his full development is at thirty—man, who takes twenty to thirty years to grow, will live to ninety or a hundred years.

M. Flourens assumes that the growth of man ends at twenty, and that this maturity, as in all animals, should be multiplied by five, to give the duration of life. Thus:

Man grows for,	20 years,	and lives to,	90 or 100
The Camel,	8 "		40
The Horse,	5 "		25
The Ox,	4 "		15 to 20
The Lion,	4 "		20
The Dog,	2 "		10 or 12
The Cat,	1 1/2 "		9 or 10
The Hare,	1 "		8
The Guinea Pig,	7 mos.		6 or 7

In order to enjoy old age it is deemed fit to observe rules:—First, to know how to be old; second, to know oneself well; third, to make a suitable adjustment of the daily life, and lastly, to attack every malady at its beginning. Blackwood's Magazine, through whose agency we have become acquainted with M. Flourens's theory, says:

Do these speculations as to the quantity of life upon the globe interfere in any way with our reasonings and conclusions as to the natural and possible length of human life? Not in the least. As an abstract result of physiological inquiry, it has been rendered probable that from ninety to a hundred years is the natural length of an ordinary human life. As a special and individual positive result, affecting each of us to whom this information is given, it has been rendered further proba-



ble that, by leading a moderate and sober life, any of us may attain this length of life in comparative health and comfort. As to what would happen on the face of the globe, were all men so to live that none should fail to reach to this great age—as to how the people would multiply, and what would become of them,—these are questions which do not concern us as individuals anxious to live long—which, were we all to begin incontinently so to live, could scarcely cause anxiety for generations to come, and which we may confidently leave to be answered by the All-disposer.

#### SUBMARINE TELEGRAPH.

We are now about to witness something which our old-fashioned historians would despatch in a line or note, though worth a volume or library or many libraries. We mean the telegraphic communication between America and Europe, precedent to its extension round the globe. This is too large a theme for any single hero. It is an idea. And yet the parties engaged in its realization regard it as already certain to be carried out. The experience of the Black Sea telegraph for instance, is thought to be conclusive, if shorter lines previously established were not. From Balaklava to Varna the wires stretch under water more than 350 miles, and not the slightest difficulty is experienced in using them. There can be no difficulty in sending electricity across the Atlantic by the same means. The length of the wires from Ireland to Newfoundland will be some 1,750 miles; they will lie on the sandy plain, which the soundings of our government have shown to stretch from land to land for the whole distance, with the exception of about two hundred miles next to the Irish coast, where the bottom becomes irregular and the water deeper. The actual distance is some 1,600 miles only, but it will be necessary to make a detour with the wires in order to carry them around the banks where icebergs often ground and where the cable might be broken by their weight and friction.

The line from Ireland to Newfoundland is to be constructed by a European Company of which Mr. Brett, who has laid down most of the submarine telegraphs of Europe, is a prominent member. The capital of this company is two millions sterling, and the contracts—already perfected—for the completion of the work require that it shall be ready for operation Jan. 22, 1858—less than three years hence. The cable of this part of the line is to contain six telegraphic wires—like the great Mediterranean cable now being laid down—and is to weigh eight tons to the mile. In laying it down of course several steamers will be required, as no single vessel could contain the enormous weight of the entire mass; but the ingenious manufacturers, Messrs. W. Kuper & Co., of London, have contrived means of so splicing it as to render the joints quite as strong and quite as serviceable as any other part of the line. Thus when one steamer has paid out her portion of the cable, the end will be spliced upon the coil on board the next steamer, and so on till all is down. Should a storm arise during the process the exceeding strength of the cable, formed as it is of a mass of heavy iron wires wound spirally around the thick tarred envelope and gutta percha cords which contain the electric conductors, will be sufficient to hold the steamer as if she were at anchor, until the gale is over. Of course the work

will be done in the Summer months when there is little danger of interruption from tempests. The cable when once sunk upon the bottom will remain there forever, below the range of marine animals, and safe from all disturbance. It would be difficult to fix a limit to its duration after it is once successfully bedded.

Of the Company which has undertaken the cis-Atlantic portion of the work we have often had occasion to speak. It is composed of some eight or more wealthy gentlemen, who propose to build the entire line from St. Johns, Newfoundland, to New York with their own resources. Peter Cooper is the President and Moses Taylor is the Treasurer of this Company, and Cyrus Field, one of its members, has just returned from Europe, where he went to consummate the arrangement with the European Company. The American part of the line will be 1,200 miles in length, 71 miles of which will be under the Gulf of St. Lawrence, and the cost of the whole is estimated at a million and a half of dollars. The wires across Newfoundland will make 400 miles of the line, running through a country hitherto unoccupied and unknown. In the cutting of the path and other preparatory labors, the Company have had 600 men employed during the past year in that Island alone. They have been liberally aided with grants of land from that colony; and have obtained advantageous charters and grants elsewhere. From our last English journals we learn that the cable to go under the Gulf of St. Lawrence was about to be shipped, and we may accordingly soon expect to be able to receive despatches from St. Johns as easily and regularly as we now do from New Orleans. This cable contains three electric wires only, it being contemplated to lay down another of the same size when the European wires have been brought across and the business between New York and London require it.

Meanwhile, as soon as communication is opened with St. Johns, it is expected that the Collins steamers will regularly call there to take in coals and deliver the news. This alone will bring us two days nearer to Europe in point of intelligence, St. Johns being two days' sail beyond Halifax. The advantage of taking a smaller stock of coal and carrying more freight will suffice to render this arrangement a most profitable one for the steamers. Finally, in three years the communication from Europe to America will become instantaneous, and then the steamers will no longer be of any value as bearers of news. When we find in the Tribune every morning a column or two of telegraphic dispatches, narrating every interesting event of the previous day in Europe and Asia—for the magical wires are being extended thither also—we shall care but little for files of journals and correspondence that reach us ten days old. These can then possess only that curious interest which belongs to old letters and old newspapers; we shall read them with pleasure perhaps, but their freshness will be gone.—*New York Tribune.*

OUR COAL TRADE.—We notice in one or two of our exchanges a statement credited to the *Pittsburg Chronicle* that in the neighborhood of this city we mine "for all purposes, ten millions of bushels of coal per annum." We mine more than double that amount, the aggregate being about 25,000,000 bushels. In 1853, according to the statement of the Mo-

nongahela Navigation Company, 15,716,367 bushels come through the lower lock of that improvement, to which is to be added the immense amount mined below that point, both for our own consumption and shipment. In 1854 the Board of Trade gathered all the available statistics of the coal trade, and in their memorial to Congress they stated the shipments of that year to be 23,738,906 bus., to which the amount of home consumption has to be added. In 1855, up to this period, the amount shipped is largely in advance of the same period in 1854. Making, however, the shipment of 1854 as the basis of calculation, we are within bounds when we affirm that we mine, for all purpose, twenty-five millions of bushels of coal per annum, which is equal to one million of dollars.—*Pitts. Gaz.*

HIGH PRICE OF BREADSTUFFS.—The following is an official statement of the average price of flour, in the month of June, in this market, for thirty years. It will be seen that it is higher now than at any former period:

Year.	Price per bbl.	Year.	Price per bbl.
1855.....	\$10.12	1839.....	\$6.25
1854.....	8.72	1838.....	7.62
1853.....	4.62	1837.....	6.18
1852.....	4.20	1836.....	6.81
1851.....	4.25	1835.....	6.25
1850.....	5.27	1834.....	5.50
1849.....	4.55	1833.....	5.62
1848.....	5.44	1832.....	6.00
1847.....	8.25	1831.....	5.50
1846.....	3.91	1830.....	4.62
1845.....	4.25	1829.....	6.62
1844.....	4.10	1828.....	4.50
1843.....	6.00	1827.....	5.00
1842.....	5.50	1826.....	4.37
1841.....	5.00	1825.....	5.25
1840.....	4.75		

#### STATISTICS OF HURON COUNTY.

The following is a statement of the number and value of the Horses and Cattle in the several Townships of this County, as returned by the Assessors, for 1855:

Townships.	HORSES.		CATTLE.	
	No.	Val.	No.	Val.
Bronson.....	449	20,106	1,568	15,407
Clarksfield.....	442	21,240	1,780	21,208
Fairfield.....	540	27,424	1,697	18,400
Fitchville.....	450	20,424	1,800	20,695
Greenfield.....	561	24,689	1,704	16,409
Greenwich.....	392	14,638	1,493	15,576
Hartland.....	416	16,587	1,516	15,494
Lyme.....	717	43,570	1,326	14,568
New Haven.....	398	18,108	1,266	14,875
New London.....	470	19,406	1,731	15,913
Norwalk.....	634	28,448	1,510	17,547
Norwich.....	421	19,122	1,355	13,430
Peru.....	559	26,228	1,252	17,667
Richmond.....	202	8,852	907	9,067
Ridgefield.....	552	34,781	1,212	17,148
Ripley.....	428	17,783	1,669	16,532
Sherman.....	332	14,441	1,008	11,282
Townsend.....	402	19,163	1,462	15,956
Workman.....	300	13,136	1,263	16,478
Total.....	8,605	407,864	27,954	404,442

Reflector.

LARGE LOCOMOTIVES.—The Buffalo papers notice the arrival in that city of two mammoth engines, the "Knox" and "Hancock," built at the Schenectady Locomotive Works, for the Northern Cross Railroad, Illinois. One of them brought over the road, from Rochester, 52 loaded cars and one engine in tow, which is the heaviest train ever run out of Rochester with a single engine. The boilers are over 19 feet long, cylinder 17 inches in diameter, 22 inch stroke, 6 driving wheels, coupled, 54 inches in diameter, and a leading truck—weight 30 tons. They were built under the direction of Walter McQueen, and run by A. J. Allen, who has for sixteen years run a locomotive on the Central road. These engines are probably the most powerful ones ever run over the road.



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SBS.	OFF'D.	ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872	7 1872					
Baltimore and Ohio.....	Transferable. Taxed.....	6 1885		70 1/4	100	44	44
Do do.....	Coupons. Not Taxed.....	6 1875					
Do do.....	" ".....	6 1880					
Do do.....	" ".....	7 1860					
Do do.....	" ".....	6 1885					
Bellevue and Indiana.....	1st mortgage, convertible.....	6 1866		98	50	45	
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866					
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870	98	99	96 1/4	100	
Chicago and Mississippi.....	1st " ".....	7 1862					
Do do.....	2d " ".....	7 1874	65				
Chicago and Aurora.....	1st " ".....	7 1866					
Cincinnati, Newcastle and Mich.....	Real Estate.....	7 1859		100	93 1/2	59	
Cleveland, Columbus, and Cin'ti.....	1st mortgage, convertible.....	7 1859					
Do do.....	No mortgage, convertible.....	7 1855					
Cleveland and Mahoning.....	1st mortgage.....	7 1861		100			
Cleveland, Paines, & Ashtabula.....	2d " not convertible.....	7 1861					
Cleveland and Pittsburgh.....	1st " convertible.....	7 1860			56 1/4	58	
Do do.....	1st " 2d sec. convertible.....	7 1873					
Cleveland and Toledo.....	1st mort. not conv. 73.....	7 1863	93	94	50	90 1/4	93
Cleveland, Zanesville, & Cin'ti.....	1st mortgage " till 1855.....	7 1867				84	85
Cincinnati, Hamilton & Dayton.....	2d mortgage.....	7 1860	85 1/2	88			
Cincinnati, N. C. & Michigan.....	1st mortgage, real estate, conv.....	10 5 & 10 y's	27	30			
Cincinnati Western.....	2d " ".....	8 " "	44 1/2	14			
Cincinnati, Wil. and Zanesville.....	2d " ".....	7 " "	69 1/4	71		40	45
Cincinnati, Ind. and Chicago.....	Real Estate.....	8 1859	40		11	15	
Cincinnati and Chicago.....	1st mortgage, convertible.....	7 1862	75	76			
Columbus, Piqua and Indiana.....	2d " ".....	7 " "	60	61			
Columbus and Xenia.....	1st mortgage, convertible.....	7 1859	80		91	100	
Covington and Lexington.....	2d " " till 1862.....	7 1863	61	65	50	30	31
Do do.....	Income.....	10 " "	68 1/4	75			
Dayton and Michigan.....	1st " ".....	7 1867			50	20	22
Dayton and Western.....	1st " ".....	7 1862				20	21
Dayton, Xenia and Belpre.....	1st " ".....	7 1864	26	30			
Eaton and Hamilton.....	1st mortgage.....	7 1862		60	25	50	51
Erie and Kalamazoo.....	1st mort. guaranty Mich. S. R. R.....	7 1862					
Evansville and Crawfordsville.....	1st mortgage.....	7 " "	80	81			
Fort Wayne and Southern.....	" ".....	" " "			12 1/4	14	
Franklin and Warren.....	" ".....	" " "					
Galena and Chicago Union.....	Pledge of second section, conv.....	10 1853-6	92 1/4		100	105 1/2	108
Hillsboro and Cincinnati.....	1st mort.....	7 " "	59 1/2	60	50	25	27
Illinois Central.....	1st mortgage, not convertible.....	6 1875	86 1/4	87	100	97	100
Do do.....	Freeland.....	" " "	90 1/4	91			
Indiana Central.....	1st mortgage, convertible.....	7 1866	63 1/4	75	50	50	52
Do do.....	" ".....	10 1857		80	50		
Indianapolis and Bellefontaine.....	1st " ".....	7 1860-1	75	25	50	50	
Indianapolis and Cincinnati.....	2d mortgage.....	7 " "	80	82	50	70	73
Indianapolis and Lafayette.....	" ".....	7 1861			50		
Jeffersonville.....	1st " not ".....	7 1861			36		
Junction (Ohio).....	1st " ".....	7 1867			50	11	15
Do Indiana.....	Real Estate.....	10 " "	72	73		12 1/2	
La Crosse and Milwaukee.....	" ".....	8 1864	77	82	100		
Little Miami.....	1st mortgage, not convertible.....	6 1863			50	98	100
Do do.....	" " till 1855.....	7 1861					
Louisville and Nashville.....	" " unconvertible.....	7 1858	9		100		
Lyons, Iowa, Central.....	1st mortgage, convertible.....	7 1873					
Mad River and Lake Erie.....	1st mortgage, convertible till 1855.....	7 1855-6		75	50	40	43
Do do.....	2d " ".....	7 1866		75			
Do do.....	Dividend.....	7 1860		75			
Madison and Indianapolis.....	1st mortgage, convert. after 1853.....	6 1861			50		
Marietta and Cincinnati.....	Domestic Bonds.....	" " "			50	27 1/2	30
Do do.....	2d " ".....	" " "			50		
Hillsboro and Cincinnati.....	1st " ".....	" " "					
Maysville and Big Sandy.....	" ".....	" " "					
Maysville and Lexington.....	1st mortgage, convertible.....	6 1873			50		
Memphis and Charleston.....	" ".....	" " "					
Michigan Central.....	No mortgage, convertible.....	8 1860	97		96 1/4	97	
Do do.....	" " ".....	8 1855-6					
Do do.....	" " ".....	8 1857-8					
Michigan Southern.....	1st " " ".....	7 1860-90	100		103	105	
Milwaukee and Mississippi.....	1st " " ".....	8 1862					
Mobile and Ohio.....	1st mortgage 6s. 1864.....	" " "					
Nashville and Chattanooga.....	" " ".....	" " "					
New Albany and Salem.....	mortgage on 1st section.....	10 1858-62			50	14 1/2	18
Do do.....	1st " " on other sec. con.....	8 1864-75					
New Castle and Richmond.....	1st " convertible.....	6 1873					
New York Central.....	" ".....	7 " "	103	104		101 1/4	103
New York and Erie.....	1st mortgage, not convertible.....	7 1867			100	51	54
Do do.....	2d " convertible.....	7 1871	87	88			
Do do.....	" ".....	7 1883	95	95			
Northern Cross, Ill.....	1st mortgage, convertible.....	8 1873					
Northern Indiana.....	1st " not convertible.....	7 1861	79				
Do do.....	1st " Goshe lic.....	1868	90	91		97	98
Do do.....	Construction Bonds.....	" " "					
Ohio Central.....	1st mortgage, convertible.....	7 1861	61				
Ohio and Mississippi.....	2d " ".....	7 1880	52 1/2	53		45	46
Ohio and Indiana.....	1st " ".....	7 1867			50	14 1/2	18
Ohio and Pennsylvania.....	" ".....	7 1865					
Do do.....	Income. No mortgage, convert.....	7 1872			50		
Pacific, Mo.....	" ".....	" " "					
Panama.....	1st mortgage, convertible.....	7 1866	101 1/4	105		104	105
Parkersburg (or N. western Va.).....	" " Guar. City of Balt.....	7 1873					
Pennsylvania.....	1st mortgage, convert. till 1860.....	6 1880			50	43 1/4	40
Peru and Indianapolis.....	1st " ".....	7 " "			25	30	31
Rock River Valley Union.....	1st " ".....	7 1872			50		
Sandusky and Maumfield.....	1st " ".....	7 1860					
Do do.....	2d " ".....	10 1853-7					
Scioto and Hocking Valley.....	1st " income.....	7 1861	50	51	50	50	51
Southwestern, Tennessee.....	" ".....	" " "					
Springfield and Columbus.....	" ".....	" " "					
Steubenville and Indiana.....	1st mortgage, convertible.....	7 1865					
Terre Haute and Alton.....	1st " ".....	1862-72	93 1/4	94			
Do do.....	2d " ".....	8 1865	89	90			
Terre Haute and Richmond.....	1st " ".....	6 1866					
Toledo, Norwalk and Cleveland.....	1st " ".....	7 1863	87	88	50		
Do do.....	2d " ".....	" " "					
Do do.....	" " Guar. of C.....	1883					

## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D.
U. S. Loan.....	6	1856	105	105
Do.....	6	1862	112 1/2	112
Do.....	6	1867	119 1/4	120
Do.....	6	1868	119 1/4	120
Do (int. ceased July 1).....	5	1853		102
Do Coupons.....		1862		118
Do.....	6	1867		118
Do.....		1853		101

## STATE.

Alabama.....	5			
California.....	7	1870	85 1/2	86 1/4
Arkansas.....	6			95
Georgia.....	6		98	99
Do.....	7			
Illinois Canal Bonds.....		1860		
Do do registered.....		1860		
Do do.....		1847		
Do do registered.....		1847		
Do do Internal Impt.....	6	1847	103	103 1/4
Do Interest do.....			64	64
Indiana.....	5		85	87
Do.....	2 1/2		53	54
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	100 1/4	
Do.....	5			
Louisiana.....	6		95 1/4	96
Michigan.....	6		97	98
Missouri.....	6		95	96
New York.....	6	1860-61	111	114
North Carolina.....	6		97 1/4	100
Ohio.....	6	1856	100	
Do.....	6	1860	105	106
Do.....	6	1870	110	111
Do.....	6	1875	110	111
Do.....	5	1855		
Pennsylvania.....	6			
Do.....	5	1870	88	89
Tennessee, long loan.....	6	1890	97 1/4	98
Do Coupons.....	5		81	83
Virginia Coupons.....	6	1886	97 1/4	98

## CITY SECURITIES.

Albany.....	6	1871-81		99 1/4
Allegheny.....	6	1875-7		80
Baltimore.....	6	1870-90	99 1/4	100 1/4
Do.....	5	1863		
Boston Bonds.....	4 1/2	1860		
Chicago.....	6	1873-7	92 1/4	95
Cleveland.....	6	1879	103 1/4	105
Cincinnati.....	6	1866-92	96	96 1/4
Do.....	6	1867		
Do W. W.....	5	1864		
Do.....	6	1865		
Covington.....	6	1856	85	87
Jeffersonville.....	6	1890	70	
Louisville.....	6	1880	86 1/4	87
Memphis.....	6	1882		72 1/2
New York.....	7	1837	100 1/4	
Do.....	5	1858-00	95	99
Do.....	5	1870-5	97	100
Do.....	5	1890		
Philadelphia.....	6	1876-90	94 1/4	95
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1883		
Racine.....	7	1873	61 1/4	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1873	81 1/4	83

## COUNTY BONDS.

Bourbon, Ky.....	6	1881	77 1/4	80
Darke, O.....	7			
Fairfield, O.....	7	1862		
Fayette, Ky.....	6	1881-3	75	75
Hancock Co.....	7		70	75
Mason, Ky.....	6	1881	73	76
McCraken Co. Ky., endorsed by New Orleans and Ohio R. R.....				
St. Louis.....	6	1866	80	85
Do.....	7	1871		

## BANKS.

American Exchange Bank, N. Y.....			105 1/4	
Ohio Life Insurance and Trust Co.....			99 1/4	103
Washington Insurance Co.....			84	85
City Insurance.....			70	
Cincinnati Insurance Co.....			80	
National Insurance.....			75	80

## KENTUCKY.

Bank of Kentucky and Branches.....				
Northern, and Branches.....			100	
Southern, and Branches.....				
Bank of Louisville.....			93	
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....			105	108
Commercial Bank of Kentucky.....				

## INDIANA.

State Bank and Branches.....				
TENNESSEE.				
State Bank and Branches.....				
Union.....				
Planters.....				

## LAND WARRANTS.

160 acre warrants, per acre.....	Buy'g	Sell'g
80 acre warrants.....	\$1 10	1 12 1/4
40 acre warrants.....		



RATES OF EXCHANGE.				
Place.	Time.	Buy'g.	Sell'g.	
On New York.....	Sight.....	$\frac{1}{2}$	$\frac{1}{2}$	prem.
Boston.....	Sight.....	$\frac{1}{2}$	$\frac{1}{2}$	prem.
Philadelphia.....	Sight.....	$\frac{1}{2}$	$\frac{1}{2}$	prem.
Baltimore.....	Sight.....	$\frac{1}{2}$	$\frac{1}{2}$	prem.
New Orleans.....	Sight.....	$\frac{1}{2}$	dis. to	par.
England.....		110		110 $\frac{1}{2}$ .

GOLD.			
California clean, p oz.....	\$17 60	@	\$17 65
Spanish Doubloons.....	16 75	@	16 75
Patriot Doubloons.....	15 75	@	15 80
Sovereigns*.....	4 85	@	4 85
Guineas.....	5 00	@	5 00
American, new.....	1 00	@	1 00
American, old.....	1 05	@	1 05
Portuguese.....	1 00	@	1 00

American Dollars.....	1 03 $\frac{1}{2}$ @	1 04
American Halves.....	1 03 $\frac{1}{2}$ @	1 04 $\frac{1}{2}$
Spanish Dollars.....	1 14 @	1 14 $\frac{1}{2}$
Spanish Quarters.....	1 00 @	1 01
Mexican Dollars.....	1 05 $\frac{1}{2}$ @	1 05 $\frac{1}{2}$
Five Franc pieces.....	97 @	97 $\frac{1}{2}$

**D. D. MILLER,**  
 Manufacturer of  
 LOCOMOTIVE, RAILROAD AND HAND  
 LANTERNS,  
 190 Water Street, New York.



**Railroad Iron,**

**1,500 TONS**, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, PERKINS & CO.**, 9 South William street. aug2 1m  
New York, July 30th, 1855.

**TO CONTRACTORS.**

**PROPOSALS** will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Grainger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly Cash.

R. L. OWEN, Chief Engineer. aug2 15W

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Manufacture, in addition to their well known class of

**ENGINEERS' & MACHINISTS' TOOLS,**  
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**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING  
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Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

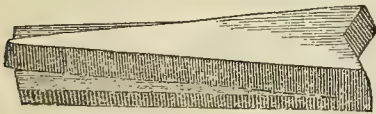
**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**Important to Railroad Companies, etc.**



**Leavitt's Railroad Frog-Points,  
Cast Steel Tools, etc.**

**THE** undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,  
Lathe Mandrels, Gauges**

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Becker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. **LEE & LEAVITT,**

15 Walnut st., Cin'ti.

**N. B.**—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**THE KENTUCKY  
MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

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The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,  
President of the Board.

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Have constantly on hand and for sale at the Stock Board, Merchant's Exchange, and at private sale, Railroad, Bank, and Insurance Stock, and Railroad Bonds.

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Cincinnati, Wilmington & Zanesville Stock.  
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Columbus & Xenia Stock.  
Covington & Lexington Stock and Bonds.  
Katon & Hamilton Stock.  
Fort Wayne & Southern Stock.  
Greenville & Miami Stock.  
Hillsboro' & Cincinnati Stock.  
Indiana Central Stock.  
Indianapolis & Cincinnati Stock.  
Junction (Indiana) Stock.  
Little Miami Stock.  
Mad River & Lake Erie Stock.  
Madison, Indianapolis & Peru Stock.  
Marietta & Cincinnati Stock.  
New Albany & Salem Stock.  
Ohio & Mississippi Stock.  
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quantities varying from 10 and upward.

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**T. N. RAFFINGTON,  
GENERAL ENGRAVER,**

North East Corner Fourth and Walnut Streets, over Ohio Savings Bank,

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**RICHARDSON'S  
PATENT**



For Locomotive and Stationary Engines. For sale by **BRIDGES & BROTHER,** Agents,  
64 Courtland St., New York.  
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**CATALOGUE OF PATENTS;**

Showing the Subject or Title of Every Patent granted by the United States Patent Office prior to the present year, and the number under each title; being a complete view of all that has hitherto been done in the whole field of invention. Price 25 cents. For sale only by the Author. Copies sent by mail Address,  
**J. S. BROWN,**  
Washington, D. C.

**NOTICE TO CONTRACTORS.**—Sealed proposals will be received at the office of the subscribers, in Dresden, Weakley county, Tennessee, until Monday, June 11th, 12 o'clock M., for the grubbing and clearing, grading, masonry &c., of fifty miles of the Western division of the Nashville and Northwestern Railroad, being that portion from the junction of the Mobile and Ohio Road from Ohio (13½ miles from Hickman, in Ky.) to Huntingdon in Carroll county. The work is divided in sections of about one mile each, and bids will include one or more sections. The soil is light and easily excavated; the location is healthy and well watered, and supplies are abundant and cheap. Payments will be made monthly in cash, but propositions will be favorably considered for a portion to be paid in stock or bonds of the road.

Bids will be received at our office in the city of Nashville for the grading and masonry of thirty miles of the Eastern division of said road, until Tuesday, July, 10th, M. This division of the work is heavy—containing about 140,000 yards of rock excavation—25,000 yards of masonry, besides a large amount of earth excavation, bridging &c. The entire road is easy of access, via Cumberland river to Nashville, Tennessee river to Reynoldsburgh and Hickman on the Mississippi, with good roads along the entire line. Profile, plans and specifications may be seen at the office in Nashville, at any time before the letting, and at Dresden one week previous to letting the Western division.

The letting at Nashville will be postponed until Saturday, August eleventh.

may 17-4t.

[Railroad Journal please copy.]

**BECKER & RUST,**

General Contractors.

**"GARDNER'S ROCK DRILL."**

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.

A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

nov17t

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Trinity Building, N. York.

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**AUBIN'S PATENT.**—We are agents for this new and improved furnace, and having had one in operation at our office for several months past, can confidently recommend it as being simple in its operation, occupying little room and furnishing a pure and beautiful burning gas. From the peculiar arrangement of the retort it is not liable to burn out, thus saving a great part of the expensive repairs of other furnaces. We are prepared to erect these furnaces at our own risk and warrant them to produce good gas.

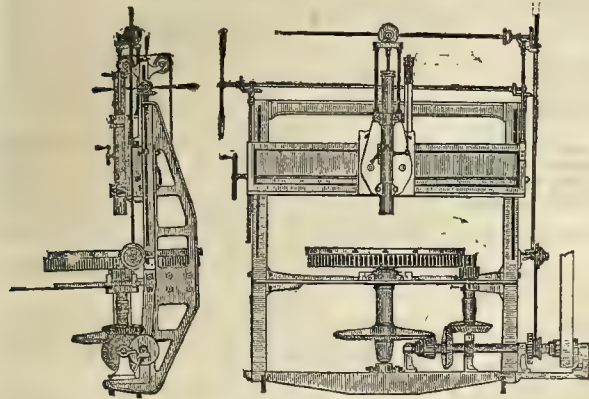
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Manufacturers of

### TYRE LATHES,

Of the most approved plan.

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OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

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Levels, &c.,

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

### Mercurial Steam Gauges.

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

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"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DURAND, FULTON AND TILTON.  
Manufactured by  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

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Bank Notes, Drafts, Bills of Exchange,  
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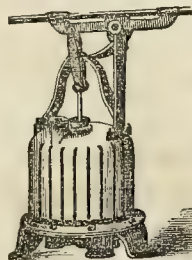
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Sole Manufacturers of McGowan's Double Action

### SUCTION & FORCE PUMP

AND

### Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y

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SAM'L. FLICKINGER, }

{ A. H. FOUNSFORD.  
{ JOHN B. RYAN.

APFLEGATE & CO.,

Booksellers, Publishers, Stationers & Blank  
Book Manufacturers,

43 Main St., Cincinnati, O.

### Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to  
JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENNA. R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent,  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.



**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**  
**WHALEBONE AND STEEL WIRE BRUSHES.**  
**Artesian Well Tubes**  
**Screwed Flush inside & outside.**  
**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**

**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**

**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

For warming air, boiling water and heating ovens.

**ANNULAR**  
**SURFACE CONDENSERS,**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**

of any calibre.

**PATENTED CAST-STEEL TIRES,**

For Railway Wheels. Railway Axles and Springs,  
**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

**FRIED. KRUPP,**

Essen Rhenish Prussia.

Represented solely in the United States by

**THOMAS PROSSER & SON,**

**28**

PLATT STREET, New York.

**CLINTON ROBSON & CO.,**  
**BRASS FOUNDERS,**  
 No. 154 Front street, between Pike and Butler sts.,  
 CINCINNATI OHIO.

STOP COCKS, Bibb, Flange, Valve, Gauge, and Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes, Couplings, Sait Well, and Hose Joints; Steam Whistles, Distillery Work, General Brassers, Anti Friction Metal, Spelter Solder, and Copper Rivets.

Pumps of all descriptions, Brass and Composition Castings, Dixon's best Black Lead Crucibles. Also, Dr. Ransom's Patent Constant Suction Pump for Railroad Water Stations.

**General Map Establishment,**  
 No. 3 College Hall, Walnut St., Cincinnati

**E. MENDENHALL,**  
**MAP, BOOK & PRINT SELLER,**

Has constantly on hand  
 GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND  
 OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers,  
 Geological and Astronomical Charts, Globes,  
 MICROSCOPES, TELESCOPES,  
**DRAWING INSTRUMENTS, &c.**

Publisher of the  
**Railway Map of the Western States,**  
 In Sheet or in Pocket Case;  
 The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
 the LARGE MAPS OF CINCINNATI, and HAMILTON CO  
 Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
**MAPS OF EVERY DESCRIPTION.**

**COLUMBUS, PIQUA, AND INDIANA RAIL-ROAD.**



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

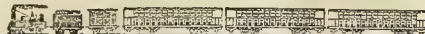
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
 Piqua, Sept. 13, 1853. Sept. 29-1f.

**Terre Haute & Richmond R. R.**



**Summer Arrangement.**

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

**TERRE HAUTE TO INDIANAPOLIS.**

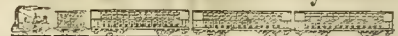
MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855.

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.**



**SUMMER ARRANGEMENT.**

COMMENCING MONDAY JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington; and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, T. min, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; Also to Delphos, Lima and Fort Wayne; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.20 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.  
 Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.  
 LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.  
 The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**  
**St. Louis, Chicago, Galena & Rock Island,**  
 BY THE WAY OF THE  
**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.  
 TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50  
 " Lafayette..... 5 50  
 " Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.  
 The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
 D. M. MORROW, Superintendent

feb. 8-ly



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, and various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

je. 84

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M., and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

**FREIGHT**—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.  
call on orders left at the Ticket Offices.

Omnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

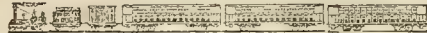
## STEREOTYPE FOUNDRY, AND AGENCY OF L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES),  
is prepared to execute in the best manner all kinds of

**STEREOTYPING,**  
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

**AT THE FOUNDRY PRICES.**  
C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

## 1855. New Arrangement, 1855 COMMENCING MONDAY, JULY 16.



## LITTLE MIAMI RAILROAD, VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:30 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

Laid with Heavy Tiron.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy Tiron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route. CINCINNATI TO CLEVELAND in 8½ hours. CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

To Columbus in.....	3¾ hours.
To Cleveland in.....	8½ "
To Dunkirk in.....	14½ "
To Buffalo in.....	16 "
To Albany in.....	26 "
To New York in.....	30½ "
To Boston in.....	35 "
To Crestline in.....	6 "
To Pittsburg in.....	14 "
To Philadelphia in.....	30½ "
To Wheeling in.....	10 "
To Baltimore in.....	26½ "
To Washington in.....	29 "
To Steubenville in.....	12 "

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.  
Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburg, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburg, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburg Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburg; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburg and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburg, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

### THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177 front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

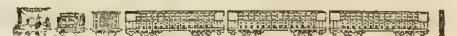
Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

### THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## PERU & INDIANAPOLIS R. R.



Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent

Indianapolis, March 22, 1855.

### Covington and Lexington Railroad.

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Falmouth, Cullerville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M.; stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

### RATES OF FARE.

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

### FOR THROUGH TICKETS.

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington. J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices oct. 17\* CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and Lafayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street. SIDNEY RICE, Agent.

Cincinnati, June 12, 1855.

## W. G. ATKINSON,

Civil Engineer, Surveyor & Draftsman. CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated. Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared. marl-1y



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNYS & PECK,  
je, 8-1f Louisville, Ky.

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

**Norris' Locomotive Works,**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
RICHARD NORRIS & SON.  
jy. 27.

**NUGENT'S COLLEGE**

OF

**ENGINEERS & MECHANICS,**

PUBLIC SQUARE, CLEVELAND, OHIO.

C. NUGENT, C. E., Principal.

The design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
au. 10.

**New Works on Civil Engineering.**

THE Field Practice of Laying out Circular Curves for Railroads. By John C. Trautwine, Civil Engineer.—4th Thousand, in pocket-book form with tucks.

—ALSO—

A New Method of Calculating the Cubic Contents of Excavations and Embankments, by the aid of Tables and 10 Engraved Plates of Diagrams. By John C. Trautwine, C. E.; 2d edition.

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Sept. 21-3\*

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The undersigned is prepared to furnish SPECIFICATIONS, ESTIMATES, AND PLANS, in general or detail of all kinds of Steam Vessels, Engines, Boilers, Mill Work, &c. Particular attention given to the superintending of LOCOMOTIVES, TENDERS, CARS,

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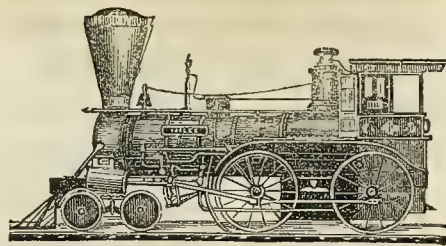
General Agent for

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Also, for Water Gages, Indicators, Steam Whistles, CHAS. W. COPELAND,

Consulting Engineer,  
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Nov. 5 tf

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BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

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The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the best of the times.

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WILLIAM SHERBURNE,

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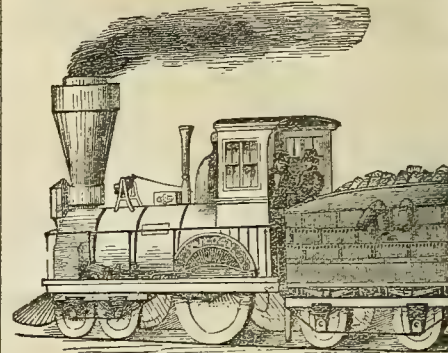
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HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles, Ames' Tire and Crank Axles, Chairs and Spikes, Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other lanterns, Drawbridge and cross Road signal Lights; Gun Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

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Of the best quality in all respects, style, workmanship and material, made to order, with promptness.

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From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

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Of any required width to 124 inches.

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Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

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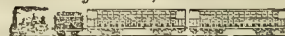
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They respectfully invite the attention of railroad directors and superintendents to their establishment.

Dayton, Jan 24th. 1853.

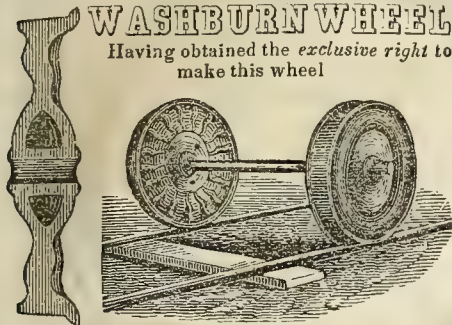
Jan. 25-†



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THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



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In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

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ap.12

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They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight-wheeled Gravel Cars. We manufacture a superior

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Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

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Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

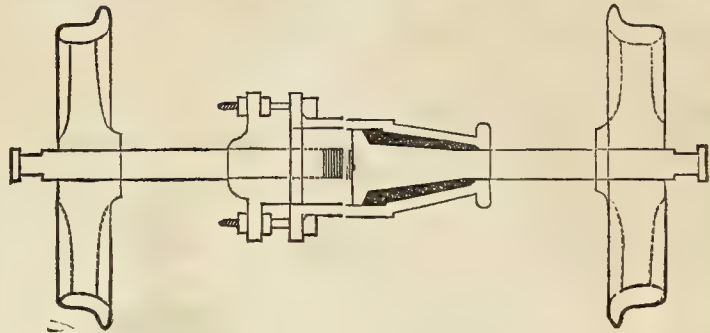
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**PATENTED JANUARY 31ST, 1854.**

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

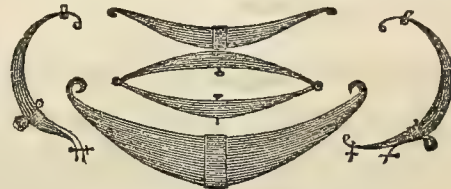
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**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UNBLE,**  
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MOTIVE**



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SPRING**

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Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDE IRON. Orders from any part of the United States will be thankfully received and promptly attended to

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All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

**References.**

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**U. WELLS, R. R. Car Manuf. Petersburg, Va.**  
**I. R. TRIMBLE, Supt. Philad. R.R. Co.**  
May 19.

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PLATFORM SCALES.**

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We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.  
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PHILADELPHIA RAILWAY AGENCY.**

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Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

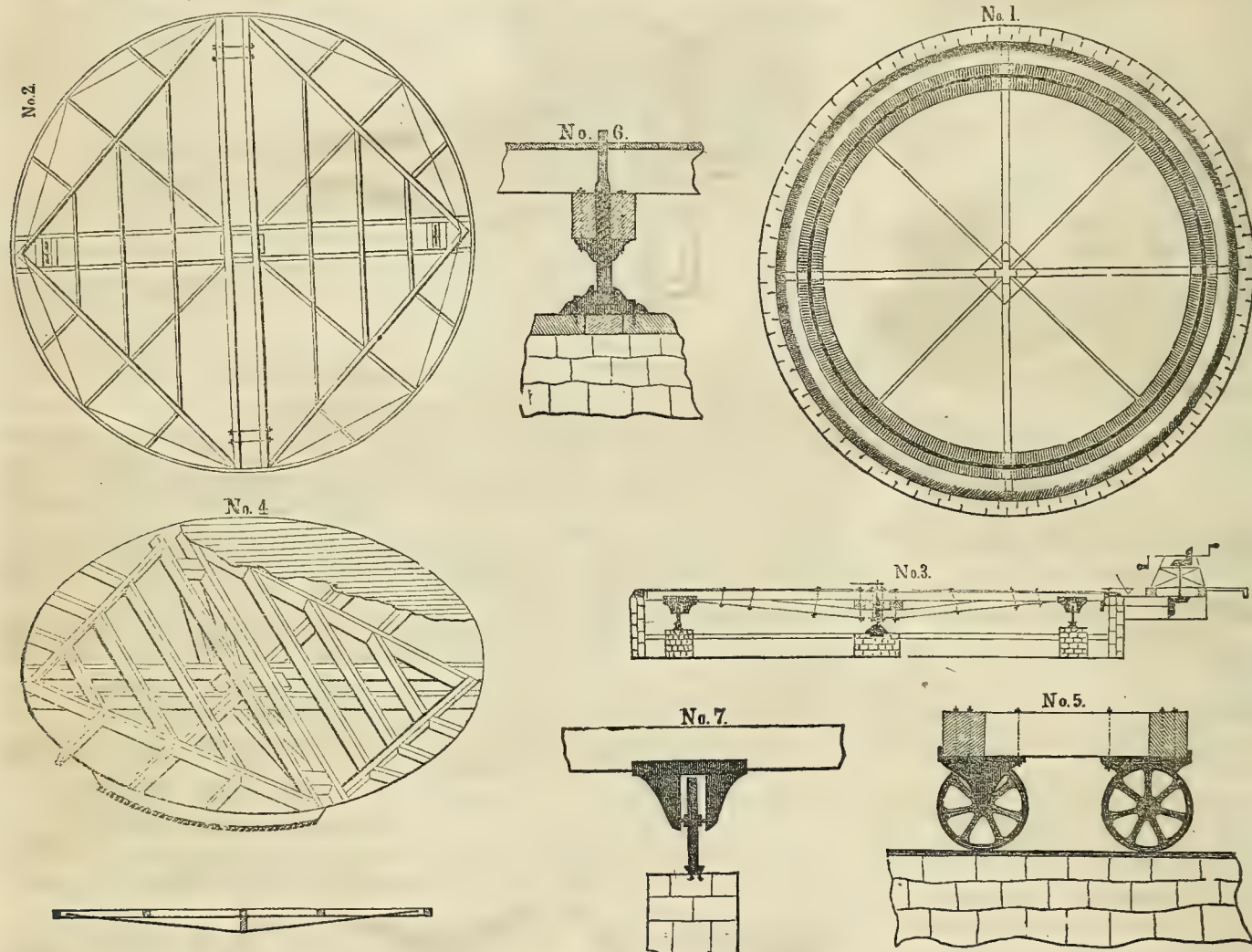
**REFERENCES.**

**Richard Norris & Son, Locomotive Builders, Philad'a,**  
**Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "**  
**Charles H. Fisher, Esq., "**  
**Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.**  
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This Table, together with an Engine and Tender of 30 Tons Weight, can be turned by One Man in 25 Seconds.

RAILROAD COMPANIES in want of *Turntables* of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction.

The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Supt and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Supt, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Supt, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Supt, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborn, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Supt, Marion, O.  
Cleveland & Pittsburgh Railroad, J. Durand, Supt, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, North Carolina.  
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Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.  
Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1. of the above cut, represents the foundations, consisting of *Bank* and *Track Walls*, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing, including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

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D. M. CARHART, Cleveland, Ohio.

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A. WETHERBEE, Proprietor.

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HORSE POWERS.—The undersigned being agents for the sale of R. H. Pease formerly Emery & Co.'s Horse Powers, are prepared to furnish them to order. They occupy little room and do their work effectually. T. WRIGHTSON & Co.

## RAILROAD IRON.

I WOULD respectfully call the attention of Railroad Companies and Contractors to my facilities for

## NOTCHING RAILROAD IRON

Suitable to be spiked in the Chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. S. M'KENNA, Jan 11.-15. Cincinnati P. O., Ohio



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING, ..... AUGUST 9, 1855.

E. D. MANSFIELD,

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By T. WRIGHTSON & CO.

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RAILROAD EARNINGS.—Will the railroad superintendents, to whom we have sent blanks, please return them filled out.

VOL. III.—No. 24.

### MODERN CIVILIZATION—THE SUBDIVISIONS OF LABOR—THE CREATION OF THE ARTS.

The minute censuses, taken in the United States and Great Britain, afford many views of society, and some of them very curious and interesting. One of them is the remarkable changes in society, produced by what we call civilization; that is, by the creation of arts. As society grows older and wiser it accumulates the arts, in other words the convenience, comforts and facilities of society. For example, pins are a mere modern convenience, but then it takes twenty different kinds of artisans to make a pin! So that we see there are not only new wants and new conveniences, but there are subdivisions of employments to each one of these. In the era of Abrahamic civilization there was little except agriculture, the coarser mechanical employments, and a few merchants, who dealt in all sorts of wares. It is true Egypt and Assyria have left behind splendid monuments of art and magnificence; but whoever examines them and consults the history of those days, will see at once, that even in ancient Memphis or Nineveh, not half the variety of arts existed which do now. Take up the census of employments in the United States, and it is easy to pick out an hundred, which did not exist, or ever had existed, in the days of Egypt and Assyria. The ancient Empires did great things, but they were coarse things; gross, enormous, exaggerated, with little of art and less of taste. But the strongest illustration of this change in civilization, produced by art, is found in the progress of the last century. An hundred employments and arts may be found in the present census, which were unknown and unheard of a century since. This is the great and undeniable testimony to the genius of the present age. If it be vain, presumptuous, bold and rebellious, at least no future historian can deny, that this age of revolution has produced noble works, honorable to humanity, and illustrative of the power and genius which God has bestowed upon man.

Let us take for example, a few of the employments which have grown up within a century, and were unknown in any previous age of the world.

Steam Engine makers, Boiler makers, Chemists, Gas makers, Lightning-rod makers, Saleratus makers, Shoe-peg makers, Cotton Gin makers, India Rubber makers, Fire Engine makers, Type cutters, Type Founders, Telegraphers, Daguerreotypists, Railroad men, Tobacconists, Editors, Pen makers, Map makers, Paper rulers, Pencil makers, Philosophical Instrument makers, Stencillers, and Stereotypists.

It may be said that Chemists, Editors and Tobacco were known prior to the last century. This is literally, but not substantially

true. Astrologers and dealers in magic, poisoners, &c., had a smattering of chemistry, but the science of chemistry grew up by the discoveries of Black, Gay, Lussac, Levoisier and Sir Humphrey Davy. As a science, it is not a century old. So of Editors. Printing was discovered four centuries since, and there was a newspaper published in England two centuries since, but Editors, either as to newspapers or books, are not, as a profession, near a century old, and now they are the fourth estate of the realm; one of the controlling elements of society. So Tobacco was known, perhaps, three centuries since, but it is a native of America and was not an article of regular commerce till within a century. As to Steam, Telegraphing, Daguerreotyping, Railways, Gas, and Stereotyping, they were unknown mysteries. It is not the least remarkable fact, in the history of these inventions, that so many of them and so important, should originate in America. The Steamboat, (not the Steam Engine) the Telegraph, the Cotton Gin, the Shoe-peg machine, Lightning Rod, and Tobacco belong to the United States. France has the beautiful invention of the Daguerreotype, together with far the largest number of the discoveries in Chemistry. Great Britain has the Railway, the Steam Engine proper, and most of the other new machines, especially those in Agriculture and Book making. A great deal has been claimed for the inventive genius of Germany, and if making musical clocks and singing birds be a test there may be something of it, but it will be exceedingly difficult to show what machinery, useful to mankind, has been invented in Germany within the last century. If there be any such we should like to be informed of it.

But, let us look a little farther into the elements of modern civilization, illustrated by employments. Of course the great business of society is performed by farmers, mechanics and merchants, and in the United States the former largely predominates.

1. Of Agricultural business we have the following varieties:

Farmers.....	2,363,938
Planters.....	27,055
Overseers.....	18,659
Dairy Men.....	2,590
Drovers.....	1,964
Gardners.....	8,144
Hemp Dressers.....	62
Herdsmen and Grazers.....	472
Wood Cutters.....	1,322

Aggregate.....2,424,326

This is nearly half the enumerated persons employed in business in the United States, and if we were to add the proportion of common laborers employed (which we have not) it would be more than half.

2. The next grand division of employments is that known as Mechanical, and which includes all Manufacturers. Putting the smaller classes under the head of miscellaneous we



have the following principal subdivisions of mechanical employments, viz:

Carpenters.....	184,671
Cordwainers (Shoemakers).....	130,473
Black and White Smiths.....	99,703
Masons and Plasterers.....	63,392
Tailors.....	52,069
Coopers.....	43,694
Cabinet and Chair makers.....	37,359
Weavers.....	31,872
Wheelwrights.....	30,692
Painters and Glaziers.....	28,166
Machinists.....	24,095
Saddle and Harness makers.....	22,779
Tanners and Curriers.....	14,988
Printers.....	14,740
Ship-carpenters.....	14,585
Bakers.....	14,256
Stone and Marble Cutters.....	14,076
Joiners.....	12,672
Brick makers.....	11,514
Hat and Cap makers.....	11,024
Mill-wrights.....	9,613
Moulders.....	7,237
Potters.....	4,155
Spinners.....	5,672
Watch makers.....	2,901
Book binders.....	3,414
Iron Founders.....	9,271
Tin Smiths.....	11,747
Miscellaneous.....	116,600

Aggregate Mechanics.....1,027,510

The mechanics, although numbering a great variety of branches, are but little more than one-third as numerous as the agriculturists.

Almost *one third* of mechanics are employed in *building*; *one fourth* in *clothing* the person; *one eighth* in *machinery*; *one twentieth* about food; and *one twentieth* about furniture. The residue are miscellaneous branches.

**3. COMMERCIAL.**—This embraces a large body of people, and very influential, but less numerous, than the mechanics :

Merchants.....	100,752
Trade s.....	14,917
Agents.....	6,264
Auctioneers.....	890
Bankers.....	532
Bank Officers, &c.....	1,375
Brokers.....	2,551
Clerks.....	101,325
Grocers.....	24,479
Florists.....	217
Jewellers.....	5,111
Packers.....	622
Paper Dealers.....	140
Pedlers.....	10,669
Produce and Provision Dealers.....	1,579
Store Keepers.....	3,747
Wood Dealers.....	473
Wool Dealers.....	344

Aggregate.....279,967

The term "Clerks" includes Book-keepers, Accountants, &c., &c.

#### 4. Professional, Scientific, and Literary Men.

This is the class, which is unquestionably the *first* class, if there be any first class, in a Republican country. The fact that it is, is proved by another fact, that it is the universal ambition of all other classes to get into this. *To be a lawyer* is, perhaps, the most general ambition of all ambitious young men; not indeed universal but quite general. Then to be an author, editor, professor or artist fills the measure of desire quite as much as that great ambition to be *rich*. The result is, that the professions (excepting that of the Gospel Ministry) are entirely overdone. The following is a list :

Lawyers.....	23,939
Physician.....	40,564
Clergymen.....	26,842
Editors.....	1,372
Authors, Professors, Reporters, Surgeons, and Teachers.....	30,141

Aggregate.....122,858

This makes up the whole of what may be called the learned and literary corps of the country, though it must be confessed that some of the body are neither very learned nor very literary. On the mind and in fact on the general progress of the country they have probably as much influence as all the others.

#### 5. SCIENTIFIC AND ARTISTIC PROFESSIONS.

This portion of the community have increased very rapidly in modern times, and never so rapidly as at present. They may be classified thus:

Chemists, Civil Engineers, Draughtsmen, Surveyors, & Telegraphers.....	3,325
Architects, Philosophical & Mathematical Instrument makers, Pen makers & Mappers.....	1,776
Actors, Artificial Flower makers, Musicians, Music Teachers, Musical Instrument makers, Sculptors, Daguerreotypists, Engravers.....	9,434
Carvers, Japaners, Lace makers, Occlists, Opticians, Porcelain makers.....	2,313

Aggregate.....16,848

There are some *twenty six* branches of business, all of which may be said to belong to the fine arts. There remains yet an immense class of persons, who can be defined by no common name, but that of workers, although they are of various kinds of employments.

#### 6. WORKERS :

Laborers.....	909,786
Servants.....	22,243
Ostlers.....	4,029
Sawyers.....	11,974
Stevedores.....	514
Barbers.....	6,013
Brick makers.....	11,514
Carters.....	13,879
Livery Stables.....	2,741
Lumbermen.....	10,070
Sailors.....	70,603
Miners.....	77,410
Oystermen.....	2,244
Porters.....	3,185
Quarriers.....	1,932

Aggregate.....1,148,137

This makes up nearly one fourth of all the business body of the nation; and it would not be easy for the others to do without them. Besides there are a good many other occupations, which cannot be classified. In all there are *three hundred and twenty-one different occupations*, and many others put under the general head of "miscellaneous." There are no doubt more than four hundred distinct occupations or professions among the American people. In Egypt, or even in Rome, there were probably not half that number. The constant multiplication of the arts, and the subdivision of labor, proves the growth of civilization. But, as society and civilization advance, there are certain evils attendant on age and advancement, which cannot be avoided by any species of government or institutions. As the subdivision of employments goes on, there comes gradually the addition or habituation to one part or species of art, by which the artizan is unfitted to any other. As this goes on, society also becomes addicted to certain forms. Gradually things are stereotyped. So the increase of the

arts increases luxury, and that the extremes of poverty and wealth. Thus society gradually, by form and luxury comes to decay. Where is the nation on earth, not in its youth, which has escaped this process? It remains yet to be proved that there is or can be a nation capable of resisting this gradual decay of human society? Sagacious Americans expect that our country will prove an exception. But, look at the increase of crime, poverty and vice, and behold the rapid march of Evil!

#### THE GLORIOUS UNCERTAINTIES OF THE LAW.

A recent decision in Vermont, has completely dissipated the settled conviction that Railroad companies are forever to be losers in suits at law.

Thomas Wilson owned some wayward cattle, and for want of proper guardians to restrain their natural propensities, they were found trespassing on the track of the Connecticut & Passumpsic River R. R. Company, and caused an accident to the train. In consequence of this accident, the cars were somewhat damaged and the Railroad company sued the owner of the cattle. The cause was tried at the last term of the Caledonia County Court, and resulted in a verdict for plaintiffs of \$150, the amount claimed, and costs.

If Thomas Wilson had been sharp enough to have sued the company, perhaps the verdict would have been otherwise. We hope to see a few more verdicts of this character and we shall then fear of fewer accidents from this cause. We have always contended and still believe that the indiscriminate rendering of verdicts against a Railroad company irrespective of the real cause of the mischief is productive of serious and alarming consequences. The farmer is freed from all responsibility. He has a useless ox, and takes care not to mend his fence, the consequence is, his ox is killed, a Railroad train thrown off the track, the lives of a hundred people jeopardized and he is paid handsomely for a worthless animal. What interest has the farmer to prevent the accident? None whatever. His interest lies the other way. He sold the land to make the track at an exorbitant price; it did not cost him a dollar to fence it or maintain the fence, and he has heretofore had a fine opportunity to get rid of his useless stock. While the Railroad companies, who bought his land and paid for it, and then furnish him and the public the best means of communion with the great world at large, have been compelled by law and legal decisions to quietly submit to every imposition. Surely this is not fair dealing.

But there is another and a stronger ground on which to rest the argument than the mere question of justice toward the companies, we mean public safety. So long as the prize of



of high prices is held out to tempt cupidity, so long as no responsibility is thrown on the owner of the cattle to keep them in proper and safe enclosures, just so long will there be risk to every train that passes by a farm where cattle are kept. Life and limb can never be safe so long as it is legally made the interest of others to jeopardise them. We rejoice therefore to see this decision, and if it is not of those "glorious uncertainties of law" that too often happen—if it is followed by others equally as wise and just, we believe that traveling on Railroads will be at least fifty per cent. safer than it is the present day.

#### PUBLIC WORKS OF PENNSYLVANIA.

We noticed last week the fact that on the day appointed for the sale of these works no bid was made, and the State was compelled to hold. We find, in the various Pennsylvania papers, various reasons given why no one was willing to bid.

Bicknell's Reporter says.—"Much regret was expressed by many at the failure of the proposed sale, and it was generally attributed to the onerous conditions and restrictions, the act authorizing the sale imposes."

As the conditions are mainly such as interest would dictate to a company purchasing these works for use we can hardly subscribe to the opinion expressed in the Reporter. These conditions are given in the Record of June 7. They provide for securing the payment of the purchase money and the operation of the works. One of these conditions is that the purchasers shall at all times maintain a continuous railroad and canal communication between Philadelphia and Pittsburg and keep the same in good operating condition. Another condition is that the purchasers shall have the exclusive right to furnish all the motive power on the railroads, provided that all persons with cars, horses, boats, and freight may pass over said works, they paying toll for this privilege; and the use of said works shall be governed by such general rules and regulations as such purchasers may, from time to time, ordain, establish, and publish; but no person shall, without the consent of such purchasers, be permitted to use horses or other animal power, on said railroads or steam on said canals, and that no discrimination should be made against boats or tonnage from the Susquehanna division of the Pennsylvania Canal.

These conditions do not strike us as being so onerous as to prevent a bid from any parties who thought the works would be profitable at the price proposed.

This was not the reason. The truth is that there are other and better modes of conveyance than the Pennsylvania public works. The Pennsylvania Railroad offers better facilities and is therefore gaining the trade. Such is the experience in New York, and

such, to a greater extent, is the present experience of Pennsylvania.

The Pittsburgh Gazette, in a long tirade against the Pennsylvania Railroad Company for not purchasing these works, censures the company severely for giving facilities for business to the transportation companies. The Gazette says: "The State is thus left through the agency of that company, with an expensive line of works upon her hands without facilities for transportation, and consequently unproductive. Upon the tax-payers of the State is thrown the burden of maintaining a long line of improvements, which, for the present, can yield nothing." Would this burden be any the lighter if thrown on a private corporation that had no hand in squandering the money already wasted in the construction and maintenance of this long line of public improvements? Pennsylvania, in her attempt to rival New York, has built an imperfect system, and it does not pay. The State cannot make money out of it, therefore she offers it for sale. Capitalists look on, calculate the prospects, and, on the day of sale, do not bid. In all this we only see on their part a clear conviction that these public works would not be a profitable investment. Pennsylvania must offer her works at a figure low enough to tempt the avarice of purchasers or she cannot sell them.

#### EDITORIAL CORRESPONDENCE.

MY DEAR RECORD:—You heard from me last week in the old Quaker town, the city of brotherly love, Philadelphia. But alas for the degeneracy of the age, a stranger could hardly suppose that this had any more claims to such a name than any other of the large cities of the country. Yet to the resident, Philadelphia has still many mementoes of its early founders. His ears are frequently saluted with the quaint "thee" of the literal follower of the Bible. What a pity that even the educated among this class will persist in murdering grammar to follow the customs of the ignorant. But I had almost forgotten that the Record is more interested in something else.

Philadelphia ranks high in the manufacture of machinery. She has always taken the lead in locomotives and her engines are well known. I visited on Saturday the extensive works of Richard Norris & Son. As the pioneer establishment in our country and one which is now doing as extensive a business as any other, exclusively engaged in this particular manufacture, this establishment affords many points of interest; not the least of which is the care exercised in the selection of material. The Norris's are interested in a rolling mill for the purpose of securing plate iron for their boilers; and hence make it in every respect satisfactory to themselves. For various working parts of their engines,

they use scrap iron. The scraps are heated in a reverberatory furnace and reduced under the hammer. The thorough working of this process also secures a very pure and excellent iron. The capacity of these works is three locomotives a week. The largest number ever turned out in one year was 106 engines in the year 1853.

The machine works of Messrs. Bancroft & Sellers are well worth a visit. American mechanics have been too apt to aim at expedition in turning out work rather than extreme accuracy in dimensions. The subject of exact dimensions has been much and unwisely disregarded. If an establishment turned out to-day a line shaft two inches in diameter with pulleys attached and to-morrow it is desired to put another pulley on it, in the usual way of depending on movable calipers and the workman's measure on an ordinary rule, there would be an absolute necessity of measuring that shaft with calipers to make a proper fit with the pulley. Now this whole arrangement is wrong. The movable and adjustable calipers are wrong. The trusting to the sight of the workman for setting the calipers is wrong and in short the whole proceeding is wrong and productive of future cost and trouble. Every shop should have its standard measures and should make the various parts of its machines to correspond to those measures. Its calipers should be fixed calipers, tested and known to be right. If such were the case universally, repairs to machinery would not cost more than two-thirds what they do now and would be always possible. It is true a machine whose parts are made without reference to exact dimensions but simply fit each other, works perhaps as well, so long as the first machine remains as a whole, as one made to standard sizes, but once let one of those parts become worn or broken and the machine must be stopped while a new part is made to correspond. Now if this were of a standard size, the moment any indication of wear was perceived a new one could be made and held in readiness for use, without the trouble of having the old one to compare.

Philadelphia is doing more business in machinery just at this moment than we had expected; her shops have their full share of business and certainly cannot complain during the dull season.

The Camden and Amboy railroad from here to New York is in fine order. The rails of this road weigh 91 lbs. to the yard. They are a T rail very deep, being seven inches in perpendicular depth and about the usual horizontal width. This makes a very stiff rail and rides easy. They are not laid as on other roads with chairs and spikes but are held in place by pieces of timber bolted to the cross ties. These pieces extend over three ties where the rails join and in other



parts of the rail only on one. The arrangement is admirable but with all deference to the opinions of those who adopted it, I think the great depth of the rail a serious objection. It deprives the rail of much of its lateral stiffness and without extraordinary outside bracing the rails will soon begin to curve outwards. The lateral jar thus caused will be found to be as great an objection as the perpendicular jarring could under any circumstances be. I would prefer a heavier rail of the ordinary proportions and think it would last longer, be stiffer in every direction and ride easier than any distortion of either perpendicular or lateral dimension.

New is York the Babel of the country. It is estimated to contain in the city proper about 750,000 people and with its adjuncts of Brooklyn and Williamsburg over 1,000,000. The recent valuation of property in the city and county of New York gives:

Total valuation in county.....	\$486,998,278.13
" " " Lamp District...	452,206,087.23
" " " South of 42nd St..	444,133,372.23

One of the great features of New York is its banks. New York has a banking capital of nearly *fifty million dollars*. It is this immense banking capital with the personal property of its operators assessed at over *one hundred and fifty million dollars* and the capital of outsiders represented by agencies that gives to New York the tremendous influence that it exerts, and that it must continue to exert till men begin to think and act more for themselves and less through others.

FREIGHT THROUGH CANADA.

We learn that freight destined for the East or West will be allowed a free transit through Canada, in United States cars, on the Great Western Railroad. The cars to be locked on their departure from the port of withdrawal, the collector at that port retaining one key, and unlocked only at the port of destination, the collector at the latter being provided with another key. The conductors appointed as inspectors of the revenue by the collectors at Detroit and Niagara, under the authority heretofore given by this department, to take charge of baggage and freight cars in transit over the Canadian section of the route from one port to another in the United States, will have also the charge of the United States bonded cars, and will be required to see that the locks and fastenings remain undisturbed, and will be provided with a manifest as required in other cases of transportation in bond, to be delivered to the collector at the port of destination, and on which they will duly certify that the bonded cars have not been opened, nor any access to their contents had on the route.

**GALENA AIR LINE RAILROAD.**—An excursion was made on July 31, from Chicago to Sterling, to celebrate the completion of the Galena Air Line Railroad to that place.

## PROTECTION OF IRON FROM OXYDATION.

It is claimed that a French Chemist has discovered a vitreous enamel, which will stand the test of any chemical or physical action to which it may be subjected. Experiments, it is added, fully prove that the adherence is perfect, and that the enamel resists the most violent shocks without cracking, although the iron it covers may be completely bent; and it does not peel off or take fire by the action of heat; while concentrated acids can be kept at the boiling point for a considerable period in vessels protected by it. Iron may thus be used where glass, silver, gold, or platinum only has heretofore been employed. It is also intended to apply the invention to the lining of water and gas pipes, covering roofs, and sheathing ships, anchors, &c.

If the invention thus claimed is really true it is a wonderful triumph. We have had for some time in our office, a specimen of enameled tubing for artesian wells, but how far this enamel would adhere to the metal when hot and bent we have never tested.

OHIO & MISSISSIPPI RAILROAD—WEST END.

We learn from the proceedings of a meeting of the Chamber of Commerce, of the city of St. Louis, held to consider the present position of that end of the road, at this meeting it was stated that Mr. Bacon, President of the road, had proposed to submit all the books, papers, accounts and vouchers of the company to the inspection of a committee of the Chamber of Commerce, if such committee was duly appointed. A committee of six were accordingly appointed with power to engage clerks and bookkeepers to assist in the investigation. Means were also taken for raising money to pay off the slight indebtedness along the line in Illinois. This portion of the road it will thus be seen, are about to do what should have been done long ago—they are virtually going to make a complete report of all their doings. Whatever may appear in this report we venture to say, the position of the company before the world at large will be improved by it.

MARION & MISSISSINEWA VALLEY R. R.—

We learn that the present available means of this company, after paying all indebtedness, is \$150,000, and that \$100,000 more stock will be sufficient to complete the road bed to Marion. The people of Grant county, at a recent meeting, resolved that they would use their best endeavors for the completion of the work.

FIRST LOCOMOTIVE IN IOWA.—The locomotive Antoine Le Claire arrived at Davenport, Iowa, on July 19. The *Gazette* says the main road leading West from Davenport is completed some  $2\frac{1}{2}$  miles, and from this day the iron will be laid down at the rate of about half a mile per day till the road to Iowa City and the branch to Muscatine shall be completed.

CINCINNATI, WILMINGTON AND ZANESVILLE RAILROAD.

We see it stated in some of our cotemporaries that the money necessary to purchase the iron to complete this road to Zanesville, has been raised in Baltimore and New York.

We have not heard anything official from this company for a good while. Gentlemen where is your report !

GEORGIA CENTRAL RAILROAD—BREACH  
REPAIRED.—On the 18th of July owing to

On the first of July owing to heavy rains a breach was made in an embankment of the Georgia Central Railroad at McCail's Mill near Macon. A mill dam just above the railroad embankment gave way and the water thus let loose swept away the railroad embankment to the depth of 44 feet and length of nearly 100 feet at the bottom and 300 feet at the top. The breach was repaired in *five* days by building trestle work over the chasm.

GALT AND GUELPH RAILROAD CANADA.—

At a meeting of the rate payers of the town of Guelph a resolution was unanimously carried that the by-law for obtaining £20,000 from the Municipal Loan Fund for the use of this road was approved by the meeting. It was also resolved that the town council be notified of the action of the meeting.

This will enable the road to go on much faster than it could have done otherwise.

## NEW MATERIAL FOR CORDAGE AND PAPER.

—From a letter of DAVID MYERLE, Esq., to the Hon. DAVID L. YULEE we learn that satisfactory experiments have been made in preparing cordage from the Bear Grass of Florida. The coarse parts of the grass are used for the cordage and the finer parts for the manufacture of paper.

It is proposed also to make use of the Arguva plant for similar purposes.

A LARGE RAILROAD BAR.—We learn from

the London *Mechanic's Journal* that the Rymney Iron Works Company have just rolled in their establishment the longest railroad bar ever produced. Previous to this time the longest rails rolled were 22 feet long. The rail in the present instance is 52 feet 6 inches. This bar has been brushed over with oil to prevent rusting and sent to the Paris Exhibition.

HUNTINGDON AND BROAD TOP RAILROAD.—

*Huntingdon, July 30* — The Huntingdon and Broad Top Railroad was opened to-day to McConellstown, a distance of eight miles, and an excursion train, with the officers of the road and a large number of citizens, passed over it. The road has been constructed in the most durable manner, and is now ready for use. The excursionists returned this afternoon, greatly delighted with the trip.



## Railroads.

### PERU AND INDIANAPOLIS R. R.—SEMI-ANNUAL REPORT.

The Superintendent and Secretary of this company made their semi-annual reports to the President, on the 1st of July. This road has now only been operated ten months since its separation from the Madison and Indianapolis R. R., in September last. The reports do not allude to the final decree of separation which was still pending on the date of the January report.

The Superintendent, E. G. Barney, Esq., in his report says: "since my last report, dated January 1st, 1855, the road has been worked without accident or detention, and is in much better condition than when we obtained possession, in September last.

"The rolling stock is also much improved, and the motive power is in good working order.

"The iron, chairs, spikes, and cross-ties, for six miles of track, have been procured, and are now being laid, in place of the worst portion of the 'flat bar' superstructure.

"We shall yet require 1,600 tons of 'T' rail, to enable us to replace the balance of the old 'flat bar' track.

"We have a train employed in ballasting, and hope, before winter sets in, to have one layer of gravel on the entire distance from Noblesville to Peru."

The earnings of the road from September last have been as follows:—

1854.	Passengers.	Freight.	Total.
September, .....	\$6,921 48	\$3,755 09	\$10,676 47
October, .....	8,954 11	4,028 59	12,983 00
November, .....	7,166 52	4,716 38	11,882 90
December, .....	6,839 01	8,401 28	15,240 29
			\$50,782 66
1855.			
January, .....	\$7,951 84	\$4,859 09	\$12,810 93
February, .....	6,075 70	3,861 26	9,936 96
March, .....	7,315 07	5,402 81	12,717 88
April, .....	6,995 63	7,206 04	14,201 67
May, .....	7,183 22	5,368 14	12,551 26
June, .....	6,534 56	4,603 23	11,137 79
Freight on Saw Logs, etc., not included above, .....			957 00
Total for six months, .....			\$74,343 59
Previous, .....			50,782 66
Total for ten months, .....			\$125,126 25

The expenses during this period have been :  
For ordinary purposes, .....

For extraordinary expenses, .....

Ordinary and extraordinary expenses, ...

The foregoing shows that the road has been worked, up to the present time, for a fraction over 38 per cent. of its gross earnings. As some of the items are necessarily estimated I presume that 40 per cent. should be allowed, which leaves \$74,895 75 applicable to payment of interest, and floating debt.

Estimating the year at the same ratio, we have \$89,874 90.

We may anticipate, for the coming year, an increase on the past year of at least 33 per cent., which, with due economy, will place us in a favorable condition. The floating debt has been much reduced, the track, rolling stock, and machinery much improved, and the interest on our bonded debt has been promptly met from the current income of the road, and sales of real estate.

Few roads in the West have done better, and in view of our prospects I anticipate, for our road a bright future.

The Secretary, Mr. Haughey, makes the following report of the financial condition of the company:—

INDEBTEDNESS, FUNDED AND UNFUNDED.	
12, 6 per cent. Bonds, due Aug. 1, 1860, at Branch Bank, Madison, .....	\$12,000 00
600, 7 per cent. Bonds, due July 1, 1864, at New York, .....	600,000 00
50, 10 per cent. County Bonds, due Sept. 1, 1861, at New York, .....	50,000 00
6, 8 per cent. Real Estate Bonds, due Jan. 1, 1853, at Cincinnati, .....	7,000 00
20, 8 per cent. Real Estate Bonds, due Jan. 1, 1861, at New York, .....	10,000 00
5, 8 per cent. Real Estate Bonds, due April 1, 1861, at Cincinnati, .....	4,700 00
21, 8 per cent. Real Estate Bonds, due July 1, 1862, at New York, .....	10,000 00
27, 8 per cent. Real Estate Bonds, due Oct. 1, 1862, at Cincinnati, .....	26,000 00
Total Bonded Debt, .....	\$719,700 00
Bills Payable, .....	118,614 46
Estimated Amount of other Debts, .....	20,000 00
	\$858,314 46
This will show the Floating Debt to be, ....	\$138,614 46
There are Bills Receivable, Notes uncollected, on hand, .....	84,669 95
Showing a Floating Debt, after deducting Personal Assets, of, .....	\$53,944 51
The amount of Real Estate unsold is, .....	339,137 60
Leaving a balance to be applied on payment of Bonded Debt and for "Construction," .....	\$285,193 11
The gross receipts from all sources, within the last ten months, amounting to, .....	\$232,543 68

Since the date of the last report the bonded debt has been increased by the issue of Real Estate Bonds to the amount of \$57,700. Of this amounts \$27,000 were issued to replace bonds borrowed of the contractors previous to the consolidation with the Madison company, and the balance were issued for the purchase of 496 tons of T rail, one half being paid in cash and the balance in the stock of the company. The capital stock of the company, from the sale of said bonds, has been reduced \$15,000, which has been transferred and returned to the company.

ARRIVAL OF IRON FOR THE GALVESTON AND RED RIVER RAILROAD.—On Saturday night, 14th instant, a portion of the iron intended for the first section of the Galveston and Red River Railroad, was landed at our wharf. Arrangements have been made for laying it down at an early day, and otherwise pushing the enterprise ahead as rapidly as possible.—*Houston Telegraph*, July 18.

### RAILROAD MEETING.

At a meeting of the Stockholders and Bondholders of the Sandusky, Mansfield & Newark R. R. Co., held at the Wiler House, in Mansfield, on the 23d instant, pursuant to public notice, JOHN G. CAMP was called to the chair, and SAMUEL ISRAEL appointed Secretary.

The report of the Committee to the meeting in New York, on the 10th instant, and the amendment thereto, were read, and after the same had been discussed, Mr. C. T. SHERMAN offered the following resolution:

WHEREAS, This meeting earnestly desires the adjustment of the existing difficulties of the Sandusky, Mansfield & Newark Railroad Co., and acknowledge the necessity growing out of such embarrassments, for the yielding of sectional interests and individual prejudices, in order that the best interests of all parties may be subserved; therefore,

Resolved, That the plan of adjustment, as adopted by the meeting of Stockholders and Bondholders, held at New York on the 10th instant, although not in all respects in accordance with our views as previously expressed, yet, for the sake of peace and compromise, is acceptable to us, and we hereby yield and assent thereto, and request the Board of Directors of the Company to carry the same into effect. JOHN G. CAMP, Pres't.

SAMUEL ISRAEL, Sec'y.

### NEW YORK AND NEW HAVEN R. R.—THE SCHUYLER FRAUDS.

The following Acts, by the Connecticut Legislature of 1855, were designed to relieve this company from the difficulties attending the final settlement of the Schuyler frauds.

At a General Assembly of the State of Connecticut, holden at Hartford, in said State, on the first Wednesday of May, the year of our Lord, one thousand eight hundred fifty-five.

Upon the petition of S. Grosvenor and others to the General Assembly, bearing date the 8th day of May, A. D. 1855, and on file, it appears to this General Assembly that the New York and New Haven Railroad Company are involved in litigation and in expensive and complicated suits and controversies, growing out of the fraudulent issues of stock and other fraudulent practices by Robert Schuyler, late President and Transfer Agent of said Company, and in other questions and controversies. And whereas doubts have arisen as to the power of the Directors of said Company and other parties, to adjust, settle, compromise, and compound the matters and claims growing out of said fraudulent issues of certificates of stock, and practices, questions, and controversies aforesaid, now, therefore, resolved by this Assembly.

SEC. 1. That the Board of Directors of said New York and New Haven Railroad Company, from and after the passage of this resolve, be, and they are hereby fully authorized and empowered in any such way and manner, as they shall deem advisable and for the interests of said Company and the stockholders thereof, to adjust, settle, compromise, and compound said claims and demands made or which may be made upon said Company, growing out of said controversies or in anywise connected with the fraudulent issue of certificates of stock and other fraudulent



practices by the said Schuyler, any, all, or any part of the same, whether the same be in suit or otherwise, and for the purpose of such adjustment, settlement, or compromise, and to provide said Company with the means needed therefor, in addition to the bonds which the said company are or shall be authorized hereafter to issue, said Directors are fully authorized and empowered to increase the capital stock of said Company at any time hereafter, from time to time as they shall deem expedient so to do, to an extent not exceeding two millions of dollars, divided into shares of one hundred dollars each, in addition to the capital authorized by the charter of said Company, and issue the same in such way and manner, and upon such terms and conditions as they shall deem expedient, any law to the contrary, notwithstanding.

SEC. 2. That all persons, corporations, associations, and parties whatsoever holding or owning any of the stock of said Company, in relation to the validity of which any question has arisen or shall arise, either in their own right, or as guardians, trustees, or otherwise in any fiduciary capacity, or in anywise interested in any of the aforesaid controversies, be and they are hereby fully authorized and empowered to accede and become parties to and be bound by any agreement, contract, or obligation whatever for the adjustment, settlement, and compromise of any claim or suit growing out of or in anywise connected with such stock, or the validity thereof, or other controversies and matters aforesaid, and upon any adjustment, settlement, or compromise being made, give full releases and discharges to said company, and also surrender and cancel any certificate or certificates of stock now or which shall be held by them.

SEC. 3. This act shall not take effect until accepted by the stockholders of said Company, at a meeting specially convened for that purpose in accordance with the by-laws of said Company:

Provided that nothing herein contained shall be deemed or construed to give validity or effect to any pretended shares of the capital stock of said Company heretofore wrongfully created or attempted to be created or transferred by any officer or agent of said company, or other person pretending to act by its authority, or to any certificate or certificates, entry or entries illegally or fraudulently issued or made of any such shares or pretended shares over and above the number limited by the charter of said Company, and duly subscribed to the capital stock thereof.

Provided, that this act shall be accepted by said stockholders within one year from the date of its passage.

Upon the petition of the New York and New Haven Railroad Company, praying for a modification of the act of 1849, relating to Railroad Companies, as per petition on file. Resolved.

SEC. 1. That the Board of Directors of the New York and New Haven Railroad Company may pay, or purchase up and retire, any part or the whole of the bonds of said Company, now outstanding, and not yet due; and for that purpose, and for the purpose of securing and paying any just claims upon the Company now existing, or which may hereafter accrue, may issue other bonds of said Company, in the name of said Company, under the corporate seal, thereof, signed by the President, and countersigned by the Treasurer of said Company, bearing interest at a

rate not exceeding seven per cent. per annum, with or without coupons or certificates of the interest due semi-annually attached thereto; which bonds shall be made negotiable on the face of the same, and shall be obligatory upon said company, according to the tenor thereof, and may be, by said Board of Directors, sold and disposed of at such times, and on such terms, as they may deem best. But said bonds, before being issued, shall be registered in the office of the Comptroller of Public Accounts, and his certificate thereof shall appear on the face of each bond. And the Comptroller shall, on the application of said Company, cancel any bonds, so by him registered, which may be brought to him for that purpose; and shall thereupon enter such cancellation upon said register; and he shall also cancel any of the now outstanding bonds of said Company which may from time to time be brought to him for that purpose; provided that no bond, to be hereafter issued, shall be so registered until a certificate, attested by the President and Treasurer of said Company, of the numbers, tenor, and amount of all bonds of said Company now outstanding, shall be deposited with the Comptroller, to be copied into his book of registry and kept on file at his office.

SEC. 2. And to secure the bonds hereby authorized to be issued and all other outstanding bonds of said Company, said Board of Directors may mortgage the railroad of said company, or any part thereof, and all or any part of their property, rights and franchises, by deed or deeds duly executed by the President of said Company in the name of said Company, and under its corporate seal to the Treasurer of this State and his successors in office, in trust for the holders of said bonds so issued and now outstanding, or to be issued from time to time, not exceeding the amount therein specified.

And the holders and owners of any bond or bonds now outstanding against said Company shall have right to surrender for cancellation, such bond or bonds, and take a new bond or bonds in renewal thereof, which being registered in manner aforesaid, shall thereafter be secured by such mortgage deed or deeds in the same manner and to the same extent as the bonds hereby authorized to be issued. Provided, however, that no such renewal bond shall bear interest at a greater rate than the rate which shall be agreed and expressed in the bonds hereby authorized to be issued. And said Company may reserve in said deed or deeds, the right to retain possession of said Railroad and of said property so mortgaged, whether real or personal, and the continued possession thereof by the company pursuant thereto, shall be without presumption of fraud arising therefrom. Provided said deed or deeds of mortgage shall be deposited in the office of the Secretary of State of this State for record, whose duty it shall be to record the same; and no other record thereof shall be necessary in this State, to make such deed or deeds of mortgage effective and valid as to all persons.

Provided that no bond shall be issued by said Company or registered as aforesaid of a less sum than five hundred dollars; and Provided further that the whole amount of bonds of said Company at any one time outstanding shall not exceed three millions of dollars.

SEC. 3. If said Company shall fail to pay its bonds or coupons, secured by mortgage as aforesaid, or any of them on due demand and

presentation thereof at the office of the Company, or any other appointed place of payment according to the tenor of the same, the Superior Court for the County of New Haven, or for the County of Fairfield, or any Judge of said County in vacation, shall have power, on application of the creditor, and reasonable notice to the Company, to appoint some proper person or persons in behalf of the Treasurer of this State as mortgagee as aforesaid, but for the benefit of the creditor or creditors of the Company, secured by said mortgage, to take possession of said Railroad and the property mortgaged as aforesaid, and to exercise the franchise of said Company, and to receive and apply the income accruing therefrom, pursuant to the directions of such Court or Judge in vacation, until all sums then due and payable to such creditors or any of them, and for which said Company shall appear to said Court or Judge to be in default are fully paid with costs.

SEC. 4. This Act shall not take effect until accepted by the stockholders of said Company at a meeting specially convened for that purpose, in accordance with the by-laws of the Company, nor until a copy of said acceptance, attested by the President and Secretary of said Company, shall be lodged on file in the office of Secretary of State of this State, for record, and whenever so accepted the same shall take effect.

State of Connecticut, ss., Office of Secretary of State.

I hereby certify that the foregoing is a true copy of the record in this office. In testimony whereof I have hereunto set my hand and affixed the seal of said State, at Hartford, this 2d day of July, A. D. 1855.

N. D. SPERRY, Secretary of State.

#### ROME AND WATERTOWN RAILROAD.

The following is the statement of earnings for this road, for the year ending June 1, 1855:

	Earnings.	Expenses.
1854.. June.....	\$29,626 53	\$21,702 96
July.....	20,998 66	17,292 12
August.....	29,712 41	17,131 84
September....	42,801 77	10,785 48
October.....	45,075 72	19,898 17
November.....	40,514 37	16,414 29
December.....	24,481 10	18,857 46
1855.. January.....	22,445 61	18,077 91
February.....	17,731 17	26,383 20
March.....	24,313 60	19,367 26
April.....	28,731 35	24,145 94
May.....	47,550 11	22,745 11
Total.....	\$393,954 45	\$241,201 64
Net earnings for the year.....		152,752 81
The assets of the Company amount to		2,324,446 91

#### The liabilities are:

Capital.....	\$1,370,428 19	Individ. accounts.....	\$107 04
Funded debt.....	529,000 00		
Floating debt.....	325,436 62	Total.....	\$2,225,196 85
Div. unpaid.....	235 00		
Surplus June 1, 1855.....			\$99,250 06

A new mortgage debt of \$800,000 has been made for the purpose of paying the floating debt and the funded debt as it falls due, and a sinking fund of 1½ per cent per annum established for the payment of these bonds. The dividends of this Company for four years have been 28½ per cent.

EASTERN RAILROAD.—TUCKERMAN'S DEFALCATION.—Boston, July 30.—The adjourned meeting of the stockholders of the Eastern Railroad was held to-day, and adopted the report of the special committee. Tuckerman's defalcation amounts to \$245,500. A new Board of Directors was also chosen.



**GRAND TRUNK RAILWAY OF CANADA.**

AUDIT OFFICE, MONTREAL, June 7th, 1855.

Return of Traffic for the Week ending Saturday, May 26th, 1855:

No.	3893 1/2	Passengers, First Class.....	3698 35 1/2
	973 1/2	do. Second do.....	86 46
	3042	Tons Merchandise.....	5909 58
	1154524	Feet of Lumber.....	4275 20
	876 1/2	Cords of Fire Wood.....	1316 33
		Mails, &c.....	1263 88

Total } \$17370 80 1/2  
 Currency,..... } \$4342 14 0

## COMPARATIVE STATEMENT.

1855—Week ending May 26...	Currency.....	\$4342 14 0
1854—Week ending May 27.....		4428 18 6

Decrease.....\$6 4 6

Miles open.....292

Total receipts for current half }  
 year commencing Jan. 1st, up } \$82,334 7 4 1/2 C  
 to week ending May 26, 1855.

JAMES HARDMAN, Auditor.

**GREAT WESTERN RAILWAY.**

The earnings of the Great Western Railway for the month of June, 1855, compares as follows with the earnings of the same month last year:—

Passengers, No. 53,780 1/2.....	\$116,340 45 1/2
Extra Luggage.....	1,201 75 1/2
Mails and Express Freight.....	4,620 92 1/2
Live Stock.....	4,310 55
Freight.....	29,201 28

Total Earnings.....\$155,683 50 1/2  
 Earnings for June, 1854.....97,808 56

Increase.....\$58,174 84 1/2

**TEMPERATURE FOR TEMPERING STEEL.**—For boring cylinders, turning rolls, or any large cast iron, let it be as hard as water will make it, minding not to heat it more than a cherry red.

Tools for turning wrought iron, pale straw color.....	430° Fahr.
Small tools for ditto, shade of darker yellow.....	430 "
Tools for wood, a shade darker.....	470 "
Tools for screw taps, etc., still darker straw color.....	490 "
For hatchets, chipping chisels, brown yellow.....	500 "
For small rimers, etc., yellow slightly tinged with purple.....	520 "
For shears, light purple.....	530 "
For springs, swords, etc., dark purple.....	550 "
For fine saws, daggers, etc., dark blue.....	570 "
For hand and pit saws, pale blue.....	590 "

The temper greatly depend on the quality of carbon there is in steel; this the practical man soon finds out, and he tempers or draws his tools accordingly:—*H. Shrivener, Liverpool, England.*

**CONVENTION OF PLANTERS.**

The meeting of planters was held at Cooper's Wells on the fourth of July, and was numerously attended. Gov. McRae presided and explained the object of the convention to be to bring about a system of direct trade from the Southern States with Europe. Mr. Baylor submitted his proposition, which was of the following character: To establish in Europe the principal cotton house or factorage, with a branch of the same in New Orleans, with a capital of several millions, which should be safely deposited, the planter to have the most satisfactory assurances of its solvency, and that they will be able under any and every emergency, to secure him against losses. A correspondent of the Vicksburg Whig says that "a number of the committee, it appears, thought well of the enterprise, and though not recommending it, have determined themselves to make small shipments as an experiment—about five hundred bales, as I am informed, will probably be sent by them." Speeches were made by J. S. Yerger, Esq., Hon. J. D. Freeman, and others. The Convention, which adjourned without having accomplished much, will meet in Jackson in January next.

**Miscellaneous and Mechanical.**

**A NEW SAW.**—We find in the Chicago Press an account of the trial of a new saw and full details of a banquet given at the Tremont Hoase in the evening to hear the report of the committee who tested its performance and to enjoy a social entertainment. If we may credit the report of the committee and judge anything from the laudatory toasts we must believe the saw a wonderful "masheen." There is a full account of the banquet but no description of the saw.—Won't our neighbor of the Press describe for us the saw?

**ALUMINUM.**

Modern science has been productive of many wonderful results in the arts. Manufacturing at the present day is a wonderfully different thing from manufacturing fifty years ago. Chemistry has made so many changes in the processes, and so simplified the whole that the manufacturer of half a century or even quarter century ago would scarcely recognize his craft at the present day. But in nothing has chemistry made greater improvements than in the art of metallurgy, and the recent discovery of the process of procuring pure Aluminum is its last as well as one of its most wonderful triumphs.

Aluminum is a beautifully white metal, resembling silver in color and appearance; it is very light, and has heretofore been obtained only in small quantities. In price it has been about as costly as gold.

Mr. Dumas, a celebrated French chemist, in exhibiting some specimens of aluminum procured by his new method, assured the Academy that, owing to recent discoveries reducing the expenses of extracting it, the cost of production was now about one hundred times less; and Mr. Ballard, another member, stated there was little doubt that the effect of competition in its manufacture, together with the advantage of throwing it open to the industrial resources of the world, would be to reduce the price as low as five francs the killogramme, or about forty cents a pound.

This important result is mainly attributable to the facility with which we are now able to procure pure aluminum in abundance, which is the active agent for the revivification of aluminum, and which was at one time very extensive. Soda is obtained by the decomposition of carbonate of soda by charcoal. By the aid of a little lime it has been found easier to separate it from oxygen. The conversion of aluminous earth or clay into chloride of aluminum takes place so easily that the price of the chloride only comes to about ten cents a pound.

Mr. Dumas observed that the generalization of the procedure of Mr. Deville, the application of chlorine to the extraction of metals forms a new era in metallurgy.

Among the many remarkable qualities of aluminum, such as its resistance to oxydation either in the air or by acids, its hardness, its wonderful lightness; its malleableness, the facility of moulding it, &c., Mr. Dumas mentions another, its sonority. An ingot was suspended by a string, and, being lightly struck, emitted the finest tones, such as are obtained only by a combination of the best metals.

**RAILROAD POETRY.**—A correspondent of the Broome county Republican, describes his jaunt over the Syracuse and Birmingham Railroad, from Cortland, in the following poetical strain:

So much I wrote in Cortland's bounds—and would have finished there, had not the down train's whistle loud resounded through the air. So shaking Fairchild by the hand, who said come up again, I bid farewell to every fear, and jumped upon the train. Rushing round the hill side, darting o'er the plain, over the rivers, under roads, Van Bergen drove his train. The moon threw bright effulgent rays on each small ripple's crest; the river seemed a ribbon stretched across the meadow's breast; the evening wind came stealing through the car with gentle sigh, and brought a cinder from the engine, spang into my eye; few and short were the prayers I said, and I spoke not a word of sorrow, but I rubbed at my eye till I made it red, and knew 'twould be sore on the morrow. We soon got home at the rate we ran, at an hour just right for retiring and down from his post came the engine man, and the fireman ceased his firing. And thus I too will cease with this, a moral to the tale—be always sure to "mind your eye," when riding on a rail!

**COAL VS. WOOD.**—Professor Haswell, late Engineer in Chief in the United States Navy, puts down 1 lb. of Coal as equal to 2 1-2 and 2 3-4 lbs. of Wood in generating steam.

**Cubic feet required to store Coal, Coke and Wood:**

1 ton of Anthracite Coal.....	44
1 ton of Coke.....	60
1 ton of Wood.....	107

The "Cumberland" locomotive was run over the Boston and Worcester Railroad for three days drawing heavy freight trains. A careful estimate of the cost shows that the expenses of a freight train is reduced nearly one-half by the use of coal as fuel instead of Wood. The consequence is that the New England locomotive builders are now turning their attention to the construction of locomotives for the use of coal instead of wood.

**NEWLY INVENTED PUMP.**—A pump without a piston, greatly simplifying the construction, is much talked of among French mechanicians. It is the invention of Monsieur de Malbeck. The tube, instead of being fixed, after the old plan, is made to work up and down, the lower end plunging into the water. At each plunge the water rises higher and higher in the tube, the return of air from above being prevented by a valve, till at last a copious and steady stream is discharged by the spout. The pump is but little subject to derangement, is not liable to be frozen up, costs but little to keep in repair, and if made of galvanised iron, corrosive liquids or acids would not affect it. It is, moreover, of universal application.



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SBS.	OFF'D.	ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872	7 1872					
Baltimore and Ohio.....	Transferable. Taxed.....	6 1885		79½	100	44	44
Do do.....	Coupons. Not Taxed.....	6 1875					
Do do.....	" ".....	6 1880					
Do do.....	" ".....	7 1860					
Do do.....	" ".....	6 1885					
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866		98	50	45	
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866					
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870	97	99		97½	100
Chicago and Mississippi.....	1st " ".....	7 1862					
Do do.....	2d " ".....	7 1874	65				
Chicago and Aurora.....	1st " ".....	7 1866					
Cincinnati, Newcastle and Mich.	Real Estate.....	7 1859		100			
Cleveland, Columbus, and Cin'ti	1st mortgage, convertible.....	7 1859					
Do do.....	No mortgage, convertible.....	7 1855					
Cleveland and Mahoning.....	1st mortgage.....	7 1861			100		
Cleveland, Paines, & Ashtabula.	2d " not convertible.....	7 1861					
Do do.....	1st " convertible.....	7 1860				56%	58
Cleveland and Pittsburgh.....	1st " 2d sec. convertible.....	7 1873					
Cleveland and Toledo.....	1st mort. not conv. '73.....	7 1863	93	94	50	90½	93
Cleveland, Zanesville, & Cin'ti.	1st mortgage " till 1855.....	7 1867				85	85
Cincinnati, Hamilton & Dayton.	2d mortgage.....	7 1880	83½	88			
Do do.....	1st mortgage, real estate, conv.....	10 5 & 10 y's	27	30			
Cincinnati Western.....	2d " ".....	8 1861	44½	71		12½	14
Cincinnati, Wil. and Zanesville.	2d " ".....	7 1861	69½	71		40	45
Cincinnati, Ind. and Chicago.....	Real Estate.....	8 1859	40			11½	15
Cincinnati and Chicago.....	1st mortgage, convertible.....	7 1862	75	76			
Columbus, Piqua and Indiana.....	2d " ".....	7 1861	60	61			
Do do.....	1st mortgage, convertible.....	7 1859	80			91	100
Columbus and Xenia.....	2d " " till 1862.....	7 1863	65	65	50	30	31
Covington and Lexington.....	Income.....	10 1861	70	75	50		
Do do.....	1st " ".....	7 1867			50	20	22
Dayton and Michigan.....	1st " ".....	7 1862			20	21	
Dayton and Western.....	1st " ".....	7 1864	26	30			
Dayton, Xenia and Belpre.....	1st mortgage.....	7 1862	60		25	45	50
Eaton and Hamilton.....	1st mort. guaranty Mich. S. R. R.	7 1862					
Erie and Kalamazoo.....	1st mortgage.....	7 1862	80	81			
Evansville and Crawfordsville.	" ".....	7 1862				12½	14
Fort Wayne and Southern.....	" ".....	7 1862					
Franklin and Warren.....	" ".....	7 1862					
Galena and Chicago Union.....	Pledge of second section, conver.	10 1853-6	92½	60	100	105½	108
Hillsboro and Cincinnati.....	1st mort. " ".....	7 1861	50½	60	50	25	27
Illinois Central.....	1st mortgage, not convertible.....	6 1875	87½	87½	100	97½	100
Do do.....	Freeland.....	7 1861	87	88			
Indiana Central.....	1st mortgage, convertible.....	7 1866	63%	75	50	50	52
Do do.....	" ".....	10 1857	80	82	50		
Indianapolis and Bellefontaine.	2d mortgage.....	7 1860-1	80	85	50	71	73
Indianapolis and Cincinnati.....	1st " ".....	7 1861			50		
Indianapolis and Lafayette.....	1st " not ".....	7 1861			50		
Jeffersonville.....	1st " ".....	7 1867			50	11	15
Junction (Ohio).....	Real Estate.....	10 1861	72	73		12½	
La Crosse and Milwaukee.....	1st mortgage, not convertible.....	6 1864	77	82	100		
Little Miami.....	1st mortgage, convertible.....	6 1863	87	90	50	97½	100
Do do.....	" " till 1855.....	7 1861					
Louisville and Nashville.....	" " unconvertible.....	7 1858	9		100		
Lyons, Iowa, Central.....	1st mortgage, convertible.....	7 1873					
Mad River and Lake Erie.....	1st mortgage, convertible till 1855	7 1855-6	75		50	40	43
Do do.....	2d " ".....	7 1866	75				
Do do.....	Dividend.....	7 1860	75				
Madison and Indianapolis.....	1st mortgage, convert. after 1853.	6 1861			50		
Marietta and Cincinnati.....	Domestic Bonds.....	7 1861			50	27½	30
Do do.....	2d " ".....	7 1861			50		
Hillsboro and Cincinnati.....	1st " ".....	7 1861					
Maysville and Big Sandy.....	1st mortgage, convertible.....	6 1873			50		
Memphis and Lexington.....	No mortgage, convertible.....	8 1860	97			98	99
Michigan Central.....	1st " ".....	8 1855-6					
Do do.....	2d " ".....	8 1857-8					
Michigan Southern.....	1st " ".....	7 1860-90			100	103½	105
Milwaukee and Mississippi.....	1st " ".....	8 1862					
Mobile and Ohio.....	1st mortgage 6s. 1884.....	7 1861					
Nashville and Chattanooga.....	mortgage on 1st section.....	10 1858-62			50		
New Albany and Salem.....	1st " on other sec. con.	8 1864-75					
New Castle and Richmond.....	1st " convertible.....	6 1873					
New York Central.....	1st mortgage, not convertible.....	7 1867	102½	104		99½	103
New York and Erie.....	2d " convertible.....	7 1871	84	88	100	52	54
Do do.....	1st " ".....	7 1863	95	95			
Northern Cross, Ill.....	1st mortgage, convertible.....	8 1873					
Northern Indiana.....	1st " not convertible.....	7 1861	79				
Do do.....	1st " Goshen line.....	1868	90	91		97	98
Ohio Central.....	Construction Bonds.....	7 1861	61			45	46
Ohio and Mississippi.....	1st mortgage, convertible.....	7 1860	52½	53		14½	18
Ohio and Indiana.....	1st " ".....	7 1867			50	14	18
Ohio and Pennsylvania.....	1st " ".....	7 1865					
Do do.....	Income. No mortgage, convert.	7 1872			50		
Pacific, Mo.....	1st mortgage, convertible.....	7 1866	101½	105		107	108
Panama.....	" ".....	7 1873					
Parkersburg (or N. western Va.)	1st mortgage, convert. till 1860.....	6 1880			50	43½	40
Pennsylvania.....	1st " ".....	7 1861			25	30	31
Peru and Indianapolis.....	1st " ".....	7 1872			50		
Rock River Valley Union.....	1st " ".....	7 1860					
Sandusky and Mansfield.....	2d " ".....	10 1853-7					
Do do.....	1st " income.....	7 1861	50	51	50	50	51
Scioto and Hocking Valley.....	" ".....	7 1861					
Southwestern, Tennessee.....	" ".....	7 1865					
Springfield and Columbus.....	1st mortgage, convertible.....	8 1862-72	93½	94			
Steuersville and Indiana.....	1st " ".....	8 1865	89	90			
Terre Haute and Alton.....	1st " ".....	6 1866					
Do do.....	2d " ".....	7 1863	87	88			
Terre Haute and Richmond.....	1st " ".....	7 1863					
Toledo, Norwalk and Cleveland.	2d " ".....	7 1863					
Do do.....	1st " ".....	7 1863					
Do do.....	" " Guar. of C.....	1883					

## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D.
U. S. Loan.....	6	1866	105	105
Do.....	6	1862	112½	113
Do.....	6	1867	119½	120
Do.....	6	1868	119½	120
Do (Int. ceased July 1) 5	5	1853		102
Do Coupons.....		1862		118
Do ".....	6	1867		118
Do ".....		1853		101

## STATE.

Alabama.....	5			
California.....	7	1870	87	88
Arkansas.....	6			91
Georgia.....	7		98	99
Do.....	7			
Illinois Canal Bonds.....		1860		
Do do registered.....		1860		
Do do.....		1847		
Do do registered.....		1847		
Do do Internal Impt. 6	6	1847	103	103½
Do Interest do.....	5		64	64
Indiana.....	2½		86½	87
Do.....	2½		53	54
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	100½	
Do.....	5			
Louisiana.....	6		93½	96
Michigan.....	6		97	98
Missouri.....	6		95½	96
New York.....	6	1860-61	111	114
North Carolina.....	6		97½	100
Ohio.....	6	1856	100	
Do.....	6	1860	103½	106
Do.....	6	1870	110	111
Do.....	6	1875	110	111
Do.....	5	1855		
Pennsylvania.....	6			
Do.....	5	1870	88	89
Tennessee, long loan.....	6	1860	96½	98
Do Coupons.....	5		81	83
Virginia Coupons.....	6	1866	93½	95

## CITY SECURITIES.

Albany.....	6	1871-81		99½
Allegheny.....	6	1875-7		80
Baltimore.....	6	1870-90	99½	100½
Do.....	5	1865		
Boston Bonds.....	4½	1860		
Chicago.....	6	1873-7	92½	95
Cleveland.....	6	1879	103½	105
Cincinnati.....	6	1866-92	96	96½
Do.....	6	1897		
Do.....	5	1884		
Do W. W.....	6	1865		
Covington.....	6	1856	80	87
Jeffersonville.....	6	1890	70	
Louisville.....	6	1860	86½	87
Memphis.....	6	1882		72½
New York.....	7	1857	100½	
Do.....	5	1858-00	95	99
Do.....	5	1870-5	97	100
Do.....	5	1890		
Philadelphia.....	6	1876-90	94½	95
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1883		
Racine.....	7	1873	61½	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1873	81½	83

## COUNTY BONDS.

Bourbon, Ky.....	6	1881	77½	80
Darke, O.....	7			
Fairfield, O.....	7	1863		
Fayette, Ky.....	6	1881-3	75	75
Hancock Co.....	7		70	76
Mason, Ky.....	6	1881	73	76
McCracken Co. Ky., endorsed by				
New Orleans and Ohio R. R.				
St. Louis.....	6	1866	80	85
Do.....	7	1871		

## BANKS.

American Exchange Bank, N. Y.....			105½	
Ohio Life Insurance and Trust Co.....			99½	103
Washington Insurance Co.....			84	85
City Insurance.....			70	
Cincinnati Insurance Co.....			84	
National Insurance.....			75	80
Bank of Kentucky and Branches.....				
Northern, and Branches.....			100	
Southern, and Branches.....				
Bank of Louisville.....			93	
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....			105	108
Commercial Bank of Kentucky.....				

## INDIANA.

State Bank and Branches.....				
TENNESSEE.				
State Bank and Branches.....				
Union.....				
Planters.....				

## LAND WARRANTS.

160 acre warrants, per acre.....		Buy's	Sell'g
80 acre warrants.....		\$1 10	1 12½
40 acre warrants.....			



**Warehouse, 85 South Third St.,  
PHILADELPHIA.**



**Railroad Iron,**  
1,500 TONS, now at New Orleans, approved T  
Pattern, weighing 61 pounds per lineal yard,  
for sale by VCSE. PERKINS & CO., 9 South William  
street. aug2 1m  
New York, July 30th, 1855.

### TO CONTRACTORS.

PROPOSALS will be received at my office, in Taze-  
well, Claiborne county, Tennessee, until the  
30th day of August, for the masonry of two bridges,  
(over Clinch and Holston Rivers), for the Cincinnati,  
Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other  
80 feet) and very long. The work must be commenced  
immediately after day of letting, so as to "put in" the  
foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of Oc-  
tober, for the Graduation and Masonry of that part  
of the above mentioned Road, lying between Bean's Sta-  
tion, Granger county and the town of Newport, Cocke  
county, (30 miles). The above work is heavy, and well  
worthy the attention of contractors. The terms of pay-  
ment will be wholly CASH.

R. L. OWEN, Chief Engineer.  
aug2 12w

Aug. 2, 1855.

## BANCROFT & SELLERS,

16th Street and Pennsylvania Avenue,  
PHILADELPHIA, PA.,

Manufacture, in addition to their well  
known class of

ENGINEERS' & MACHINISTS' TOOLS,  
SHAFTING, GEARING,

PULLEYS, COUPLINGS,  
AND

BANCROFT'S PATENT SELF-ADJUSTING  
HANGERS & PEDESTALS;

Together with general Millwright Work for Railroad  
and Locomotive Shops, Factories, etc.

— ALSO —

### CAST IRON TURN-TABLES,

Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with

### PARRY'S PATENT

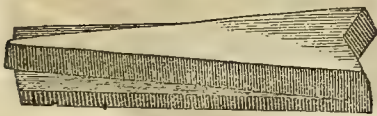
## Anti-Friction Pivot Box.

— ALSO —

### TRANSFER AND DROP TABLES,

Suited for Locomotive and Repair Shops, Car Fac-  
tories, etc., etc.

Important to Railroad Companies, etc.



### Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel,  
in a liquid state, can be moulded into any shape or  
form, are, by means of this valuable discovery, manu-  
facturing

### RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for  
Mill Spindles and Shafting, Swage Hammers, and almost  
all the different variety of tools which are difficult to  
forge. Articles made in this manner, are much superi-  
or to forged productions, as the steel out of which  
they are manufactured, loses none of the carbonic ele-  
ment, but retains it in all its original purity, while  
under the repeated heats to which it is subjected by the  
old and tedious process, it loses much of this valuable  
property. They are also produced in a much more per-  
fect state, needing little or no fitting or dressing, hav-  
ing all the accuracy of shape which moulded articles  
possess. They can, also, be furnished at one-half the  
cost of the others.

The qualities of the Frog-Points have been already  
tested by the Ohio and Mississippi Railroad Company,  
to whom the manufacturers are furnishing them through  
G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this  
valuable invention. LEE & LEAVITT,  
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the pub-  
lic to their valuable and extensive assortment of cast  
steel saws, and circular saw mills, etc.

## THE KENTUCKY MILITARY INSTITUTE.

DIRECTED by a Board of Visitors appointed by the  
State, is under the superintendence of Col. E. W. MOR-  
GAN, a distinguished graduate of West Point, and a  
practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges,  
with the addition of a more extended course in Mathe-  
matics, Mechanics and practical Engineering and Min-  
ing Geology; also in English Literature, Historical  
Reading, Book keeping and Business Forms, and in  
Modern Languages.

The seventeenth semi-annual session opens on the  
second Monday in September, (10th September, 1855).  
Charge \$102 per half yearly session, payable in ad-  
vance.

Address the Superintendent, at "Military Institute,  
Franklin county, Ky.," or the undersigned,

P. DUDLEY,  
President of the Board.  
jy26 2m

## CINCINNATI STOCK SALES.

### HEWSON & HOLMES,

Have constantly on hand and for sale at the Stock  
Board, Merchant's Exchange, and at private sale,  
Railroad, Bank, and Insurance Stock, and Railroad  
Bonds.

Regular sales at Stock Board on Wednesday and Sat-  
urday of each week.

### FOR SALE.

Bellevue and Indiana Railroad Stock.  
Central Ohio Railroad Stock.  
Cincinnati, Hamilton and Dayton Railroad Stock.  
Cincinnati and Chicago Railroad Stock.  
Cincinnati, Wilmington & Zanesville Stock.  
Columbus, Piqua & Indiana Stock and Bonds.  
Columbus & Xenia Stock.  
Covington & Lexington Stock and Bonds.  
Faton & Hamilton Stock.  
Fort Wayne & Southern Stock.  
Greenville & Miami Stock.  
Hillsboro' & Cincinnati Stock.  
Indiana Central Stock.  
Indianapolis & Cincinnati Stock.  
Junction (Indiana) Stock.  
Little Miami Stock.  
Mad River & Lake Erie Stock.  
Madison, Indianapolis & Peru Stock.  
Marietta & Cincinnati Stock.  
New Albany & Salem Stock.  
Ohio & Mississippi Stock.  
Peru & Indianapolis Stock.  
Spartanburg, Mt. Vernon & Pittsburgh Stock.  
quantities varying from 10 and upward.

HEWSON & HOLMES,  
83 & 85 Walnut Street. dec27



### T. N. RAFFINGTON, GENERAL ENGRAVER,

North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
CINCINNATI.

## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
64 Courtland St., New York.  
May 17.

## CATALOGUE OF PATENTS;

Showing the Subject or Title of Every Patent granted  
by the United States Patent Office prior to the present  
year, and the number under each title; being a complete  
view of all that has hitherto been done in the whole  
field of invention. Price 25 cents. For sale only by  
the Author. Copies sent by mail Address,  
J. S. BROWN,  
Washington, D. C.

**NOTICE TO CONTRACTORS.**—Sealed proposals will  
be received at the office of the sub-committee, in Dres-  
den, Weakley county, Tennessee, until Monday, June  
11th, 12 o'clock M., for the grubbing and clearing, gra-  
ding, masonry &c., of fifty miles of the Western di-  
vision of the Nashville and Northwestern Railroad,  
being that portion from the junction of the Mobile and  
Ohio Road from Obion (13 1/2 miles from Hickman, in  
Ky.) to Huntingdon in Carroll county. The work is  
divided in sections of about one mile each, and bids  
will include one or more sections. The soil is light  
and easily excavated; the location is healthy and well  
watered, and supplies are abundant and cheap. Pay-  
ments will be made monthly in cash, but propositions  
will be favorably considered for a portion to be paid  
in stock or bonds of the road.

Bids will be received at our office in the city of Nash-  
ville for the grading and masonry of thirty miles of the  
Eastern division of said road, until Tuesday, July, 10th,  
M. This division of the work is heavy—containing  
about 140,000 yards of rock excavation—25,000 yards of  
masonry, besides a large amount of earth excavation,  
bridging &c. The entire road is easy of access, via  
Cumberland river to Nashville, Tennessee river to  
Reynoldsburgh and Hickman on the Mississippi, with  
good roads along the entire line. Profile, plans and  
specifications may be seen at the office in Nashville, at  
any time before the letting, and at Dresden one week  
previous to letting the Western division.

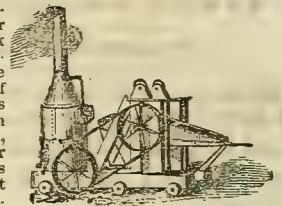
The letting at Nashville will be postponed until Satur-  
day, August eleventh.

may 17-4t.  
[Railroad Journal please copy.]

BECKER & RUST,  
General Contractors.

### "GARDNER'S ROCK DRILL."

DESIGNED for Min-  
ing, Tunneling, Quar-  
rying use, and Rock  
Excavations of all de-  
scriptions, by the use  
of which a saving of  
50 to 75 per cent. is  
made. This drill can  
be operated by hand,  
horse, or steam power  
and works equally as  
well horizontally or at  
any angle, as perpen-  
dicularly.



A silver medal, the highest prize, was awarded these  
Machines at the World's Fair.

Applications for Territorial Rights and Machines must  
be made to the Patentee.

nov17+

G. ARTHUR GARDNER,  
Trinity Building, N. York.

### Railroad Printing.

WE have now attached to this office an ex-  
tensive Composition and Press Room and  
Bindery, under the personal supervision of the  
proprietors of the Record. With confidence,  
therefore, we call the attention of RAILROAD OF-  
FICERS and others to our extensive establishment,  
containing every facility for turning out superior  
work in any and every department of the PRINT-  
ING BUSINESS.

We are fully prepared to furnish Railroad and  
other Reports, with or without Maps or other il-  
lustrations, gotten up at short notice and in superi-  
or style. Also, Blanks of any description, adapted  
to the wants of the various departments of the  
Railroad service, and to the wishes and tastes of  
the parties.

Also, Railroad Tickets and Conductors' Checks.  
Our patent Card Press, enables us to supply any  
demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with  
or without Printed Headings, and bound in the  
most substantial manner.

With the numerous facilities for doing the Best  
Work, we feel no hesitancy in promising full sat-  
isfaction to all who may favor us with their or-  
ders.

T. WRIGHTSON & CO.,  
Railroad Record Office, 167 Walnut st Cin.

### GAS.

AUBIN'S PATENT.—We are agents for this new  
and improved furnace, and having had one in op-  
eration at our office for several months past, can  
confidently recommend it as being simple in its  
operation, occupying little room and furnishing a  
pure and beautiful burning gas. From the pecu-  
liar arrangement of the retort it is not liable to  
burn out, thus saving a great part of the expensive  
repairs of other furnaces. We are prepared to  
erect these furnaces at our own risk and warrant  
them to produce good gas.

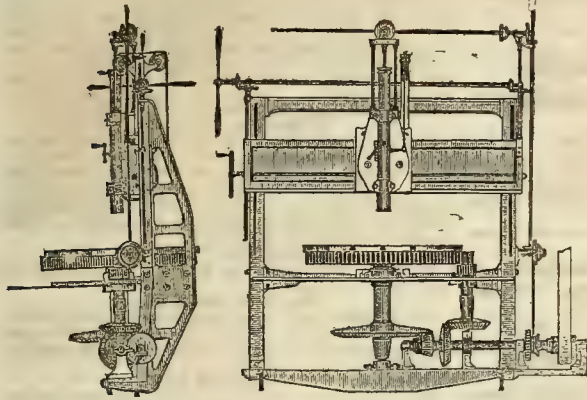
T. WRIGHTSON & CO.,  
167 Walnut-st., Cin'ti.



# NILES' WORKS.

## FOUNDERS AND MACHINISTS,

EAST FRONT STREET, CINCINNATI,



Manufacturers of  
**TYRE LATHES,**  
Of the most approved plan.  
**HORIZONTAL**  
**FACE PLATE LATHES,**  
OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.  
**PLANING MACHINES**  
LARGE & SMALL.

## MARINE & STATIONARY ENGINES.

BOILERS OF EVERY DESCRIPTION.

## HEAVY FORGINGS,

IRON AND BRASS CASTINGS, &C., &C.



### MATHEMATICAL INSTRUMENTS.

**T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.  
No. 1, 2d STORY APOLLO BUILDING,  
CINCINNATI, O.,

MANUFACTURERS OF  
**Surveyors' & Engineers'**  
**Instruments, Theodo-**  
**lites, Transits,**  
**Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

### Mercurial Steam Gauges.

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DURAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

### BANK NOTE ENGRAVING.

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES

Engraved in a style unsurpassed.

### GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

### SUCTION & FORCE PUMP

AND

### Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-ly

JAMES APPEGATE.

SAM'L. FLICKINGER.

A. H. FOUNSFORD.

JOHN B. RYAN.

### APPEGATE & CO.,

Booksellers, Publishers, Stationers & Blank

Book Manufacturers,

43 Main St., Cincinnati, O.

### Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, Jr.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE.

TRANSPORTATION DEPARTMENT, PENN'A R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent,  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEORGE T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.



**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Frosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**  
**WHALEBONE AND STERL WIRE BRUSHES.**  
**Artesian Well Tubes**  
**Screwed Flush inside & outside.**  
**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**

**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**  
**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**  
**For warming air, boiling water and heating ovens.**  
**ANNULAR**  
**SURFACE CONDENSERS,**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**

of any calibre.

**PATENTED CAST-STEEL TIRES,**

For Railway Wheels, Railway Axles and Springs,  
**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

**FRIED. KRUPP,**

Essen Rhenish Prussia.

Represented solely in the United States by

**THOMAS PROSSER & SON,**

**28**

PLATT STREET, New York.

**CLINTON ROBSON & CO.,**  
**BRASS FOUNDERS,**  
 No. 154 Front street, between Pike and Butler sts.,  
**CINCINNATI OHIO.**

**STOP COCKS, Bibb, Flange, Valve, Gauge, and**  
**Cylinder Cocks; Oil Cups, Oil Cocks, Oil Globes,**  
**Couplings, Salt Well, and Hose Joints; Steam Whis-**  
**tles, Distillery Work, General Brassers, Anti Friction**  
**Metal, Spelter Solder, and Copper Rivets.**  
 Pumps of all descriptions, Brass and Composition  
 Castings, Dixon's best Black Lead Crucibles.  
 Also, Dr. Ransom's Patent Constant Suction Pump  
 for Railroad Water Stations.

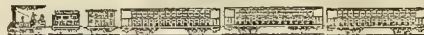
**General Map Establishment,**  
 No. 3 College Hall, Walnut St., Cincinnati

**E. MENDENHALL,**  
**MAP, BOOK & PRINT SELLER,**  
 Has constantly on hand  
 GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND  
 OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers.  
 Geological and Astronomical Charts, Globes,  
 MICROSCOPES, TELESCOPES.  
**DRAWING INSTRUMENTS, &c.**  
 Publisher of the

**Railway Map of the Western States,**  
 In Sheet or in Pocket Case;  
 The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
 the LARGE MAPS OF CINCINNATI, and HAMILTON CO  
 Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
**MAPS OF EVERY DESCRIPTION.**

**COLUMBUS, PIQUA, AND INDIANA RAIL-**  
**ROAD.**



New route from Columbus, West, and from Urbana,  
 East.

On and after Monday, September 19, 1853, two trains  
 per day, (Sunday excepted), each way, will run on this  
 Road, between COLUMBUS and URBANA. Will leave Col-  
 umbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana  
 at 8.12 a. m., and 6.14 p. m. Returning—will leave Ur-  
 bana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving  
 at 2.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with  
 the night Express train from Cleveland and arrive at  
 Urbana in time for the morning train north for Sandusky  
 and intermediate points. Persons arriving by the  
 morning Cleveland and Zanesville trains can have a few  
 hours at Columbus and leave by the 3.30 p. m. train—  
 arriving at Urbana in time to get supper, and take the  
 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the  
 morning train from Cincinnati and Dayton that arrives  
 at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m.  
 in time for the 1 p. m. train for Cleveland, connecting  
 with the Buffalo and Dunkirk boats. The 3.00 p. m. train  
 will leave Urbana on the arrival of the Sandusky train—  
 reaching Urbana at 2.45 p. m.—and arrive in Columbus  
 in time for the various night trains.

A line of Omnibuses will connect with the trains at  
 Urbana for the conveyance of passengers to and from  
 Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
 Piqua, Sept. 13, 1853. Sept. 29-1f.

**Terre Haute & Richmond R. R.**



**Summer Arrangement.**

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis  
 and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M.,  
 arrives at Terre Haute at 11.55 A. M., connecting with  
 the 12.30 P. M. Train of the Evansville and Crawfords-  
 ville Railroad; arrive at Evansville at 6 P. M. Steam-  
 boats leave Evansville daily for the various places on  
 the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage  
 at 3.30 P. M., connecting with the Trains of the Ohio  
 and Mississippi Railroad, arrive at St. Louis at 1.30 P.  
 M. Time from Indianapolis to St. Louis 22½ hours.  
 Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., ar-  
 rives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., ar-  
 rives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M.,  
 arrives at Indianapolis at 3.15 P. M., connecting with  
 the afternoon trains for Cleveland, Cincinnati and the  
 East. Mail Train stops at all way stations, Express  
 Train only at Greencastle.

May 28, 1855. S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.**



**SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis,  
 Terre Haute, Lafayette, Peru, Michigan City, Chicago,  
 Galena, Rock Island, St. Louis and the West. This  
 train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde,  
 Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New  
 York and Boston; connects at Forest for Crestline,  
 Pittsburgh, Philadelphia, Baltimore, Washington; and  
 at Sandusky with Train for Toledo and Chicago, arriv-  
 ing at Chicago at 2.40 o'clock A. M. This Train stops  
 only at Hamilton, Middletown, Dayton, Springfield,  
 Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00  
 A. M., for Dayton, Springfield, Sandusky, Cleveland  
 and way stations; connects at Forest for Crestline,  
 Pittsburgh, Philadelphia, Baltimore, &c.; Also to Del-  
 phos, Lima and Fort Wayne; same train connects at  
 Sandusky with steamer Bay City for Detroit; and at  
 Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton  
 and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P.  
 M., stops at all way stations; connects at Dayton for  
 Troy, Piqua, &c. and at Hamilton for Eaton, Richmond,  
 Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield,  
 Sandusky and way stations. Cleveland, Dunkirk, Buf-  
 falo, Albany, New York and Boston; connects at For-  
 est for Crestline, Pittsburgh, Philadelphia, Baltimore  
 &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train  
 stops at all regular stations, as at flag stations on sig-  
 nal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and  
 Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 &  
 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M. & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15,  
 7.15 and 8.15 P. M.

For further information or tickets, apply at the  
 ticket office corner of Front street and Broadway, un-  
 der the Spencer House, or at the ticket office on Walnut  
 street, next door to the Gibson House, or at the Sixth  
 Street depot.

HENRY O. AMES, Sup't.  
 The Omnibus Line will call for passengers by leaving  
 their names at the Office.

**Cincinnati to Indianapolis,**

**St. Louis, Chicago, Galena & Rock Island,**

BY THE WAY OF THE

**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in ..... 15 HOURS.

TO ST. LOUIS, in ..... 31 HOURS.

Passengers will find this the most pleasant route of  
 any in the West, as it passes through the richest, and  
 most thickly settled portion of the State of Indiana. In  
 taking this route, Passengers will reach Terre Haute,  
 Lafayette, Peru, Michigan City, Chicago, Rock Island,  
 Galena and St. Louis, as soon as any other leaving  
 Cincinnati, and with but little fatigue, in consequence  
 of the superior manner in which the roads are con-  
 structed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,  
 LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will  
 leave the Sixth Street Depot as follows:

**FIRST TRAIN**—Chicago Day Express—at 5.30 A. M.,  
 to Richmond, Indianapolis, Lafayette, Michigan City,  
 Chicago, Galena, Rock Island and St. Louis; connect-  
 ing at Indianapolis for Peru, Terre Haute, &c.

**SECOND TRAIN**—Indianapolis and Chicago Even-  
 ing Express—at 2.30 P. M., for Richmond and India-  
 napolis, making direct connection at Indianapolis with  
 Night Express for Lafayette, Michigan City and Chi-  
 cago,—arriving at Chicago in time for early Morning  
 Trains for Galena, Rock Island and St. Louis.

**THIRD TRAIN**—Richmond and Indianapolis Accom-  
 modation—at 5.00 P. M., for Richmond, Indiana,  
 polis and intermediate stations; resuming by early  
 Morning Trains at Indianapolis, to Terre Haute, Vin-  
 cennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

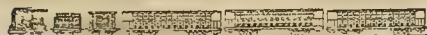
For through tickets and information, please apply at  
 the General Railroad Ticket Office, No. 169 Walnut St.,  
 or to W. A. LATHAM, at Cincinnati, Hamilton and  
 Dayton Railroad Office, corner of Broadway and Front  
 streets, under the Spencer House, or at the Sixth street  
 Depot.

M. L. MITCHELL, Agent.  
 The Omnibus Line, will call for passengers by leaving  
 their orders at the offices.

WM. H. SMITH, Conductor.  
 feb. 8-1y D. M. MORROW, Superintendent



## Baltimore &amp; Ohio Railroad.



## 380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

## FOR FREIGHTS IN EITHER DIRECTION

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

## Philadelphia and New York Railroads.

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York.

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

W. M. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

TO LOUISVILLE  
IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 10 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co.

S. S. POST,  
Chief Engineer and Superintendent.

Omnibuses run from the principal hotels, and call on orders left at the Ticket Offices.

Omnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BARCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

STEREOTYPE FOUNDRY,  
AND AGENCY OF

## L. JOHNSON &amp; CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)

is prepared to execute in the best manner all kinds of  
STEREOTYPING,

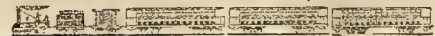
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

## AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

## 1855. New Arrangement, 1855

## COMMENCING MONDAY, JULY 16.

LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

Laid with HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.  
CLEVELAND TO CINCINNATI in 8½ hours.

## Time via Little Miami Route from Cincinnati to

To Columbus in.....	3½ hours.
To Cleveland in.....	8½ "
To Dunkirk in.....	14½ "
To Buffalo in.....	16 "
To Albany in.....	26 "
To New York in.....	30½ "
To Boston in.....	35 "
To Crestline in.....	6 "
To Pittsburgh in.....	14 "
To Philadelphia in.....	20½ "
To Wheeling in.....	10 "
To Baltimore in.....	20½ "
To Washington in.....	29 "
To Steubenville in.....	12 "

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami) Depot, East Front street.

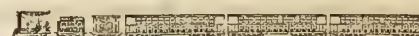
Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## PERU &amp; INDIANAPOLIS R. R.



Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent

Indianapolis, March 22, 1855

## Covington and Lexington Railroad.

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Farmouth, Cullensville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia's, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Train North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.20 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

## RATES OF FARE.

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

## FOR THROUGH TICKETS.

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHTY,

Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices

oct. 17\* CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

## VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at

6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and Lafayette for Chicago both morning and evening Trains, and at Chicago for South, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,

Cincinnati, June 12, 1855. Agent.

## W. G. ATKINSON,

Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for

Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

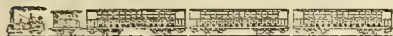
Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared.

mar-1y



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

The Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

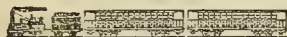
Communications or orders must be addressed to  
**OLMSTED, TENNYS & PRICK,**  
je.9-tf Louisville, Ky.**Myers' Patent Cylindrical Car.**

**NOTICE.**—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Railroad Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

**Norris' Locomotive Works,****PHILADELPHIA.**

**ENGAGED** for many years in manufacturing Locomotives, offers to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
jy. 27. **RICHARD NORRIS & SON.****NUGENT'S COLLEGE****OF ENGINEERS & MECHANICS,**  
PUBLIC SQUARE, CLEVELAND, OHIO.**C. NUGENT, C. E., Principal.**

The design of this Institution is to afford young men an opportunity of acquiring a knowledge of the profession of Civil Engineering, and to Mechanics and Tradesmen a sound theoretical and practical knowledge of Mathematics, Architectural and Mechanical Drafting, Plain and Ornamental Penmanship, &c. For further particulars address the Principal.  
au. 10.

**New Works on Civil Engineering.**

**THE Field Practice of Laying out Circular Curves for Railroads.** By John C. Trautwine, Civil Engineer.—4th Thousand, in pocket-book form with tucks.  
—ALSO—

**A New Method of Calculating the Cubic Contents of Excavations and Embankments,** by the aid of Tables and 10 Engraved Plates of Diagrams. By John C. Trautwine, C. E.; 2d edition.  
Price, one dollar each. Postage on the Curves, five cents; on the Excavations and Embankments, eight cents. For sale by **WILLIAM HAMILTON,**  
Hall of the Franklin Institute, Philadelphia, Pa.

Sept. 21-3\*

**ENGINEERING!!**

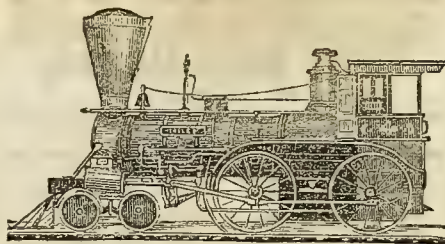
The undersigned is prepared to furnish **SPECIFICATIONS, ESTIMATES, AND PLANS,** in general or detail of all kinds of **Steam Vessels, Engines, Boilers, Mill Work, &c** Particular attention given to the superintending of **LOCOMOTIVES, TENDERS, CARS,** and **Railway Machinery of every Description,** while under construction.

**AGENT FOR THE PURCHASE of, on commission, all articles required for Railroads, Steam Vessels, Locomotives, Engines, Boilers, Machinery, &c.**

General Agent for

**ASHCROFT'S STEAM GAUGE, ALLEN AND NOYES' METALLIC SELF ADJUSTING CONICAL PACKING, DUDGEON'S HYDRAULIC JACK.** Also, for Water Gauges, Indicators, Steam Whistles, **CHAS. W. COPELAND,**  
Consulting Engineer,  
64 Broadway, N. Y.

Nov. 5 tf

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

**BUILD** to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars.**

The attention of Railroad Managers and others is called to this valuable improvement in

**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent, below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs one tenth part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

**WILLIAM SHERBURNE,**

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, JR.,**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.



**HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors' Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.**

Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th. 1853.

mar-1f

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

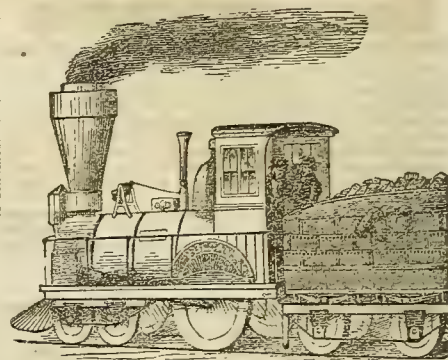
**CINCINNATI, OHIO.**

**HAVING OPENED** a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.  
jy 13.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap. 10

**MOORE & RICHARDSON.****WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.****Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

**CHARLES WASON,**

Late of the firm of T. &amp; F. Wason, Springfield, Massachusetts.

**Railroad Car Findings.****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Castings Fitted****Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
**Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Eutts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Rabbitt Metal.

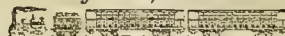
**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

**ALBERT BRIDGES.**

Late Davenport &amp; Bridges, Car Manufacturers.

Cambridgeport, Mass.

**ALFRED BRIDGES,**Late Davenport, Bridges & Co., Fitchburg, Mass.  
toct**CAR MANUFACTORY,****Dayton, Ohio.**

**E. THRESHER & CO.,** having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machine, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

Dayton, Jan 24th 1853.

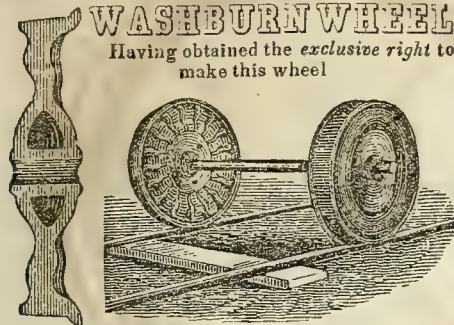
Jan. 25-t



**FULTON CAR WORKS,**

CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville

They are prepared to execute orders, on short notice, for Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

**J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL**  
**DAVENPORT, RUSSELL & CO.,**

**Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16<sup>th</sup> JOSEPH DAVENPORT.

**S. C. THOMSON & CO.,**

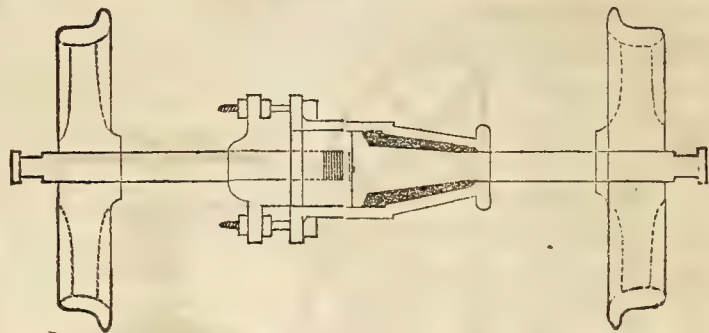
MANUFACTURERS OF

**PATENT PAD LOCKS,**

For Railroad Switches, Merchandise Cars Stores, Cemeteries, Iron Safes, &c.,

Cor. Railroad Avenue and Market st.,

n. 124 NEWARK, N. J.

**DENNEY'S DIVIDED CAR AXLE.**

PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

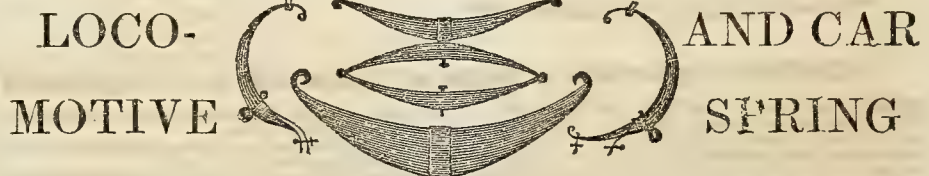
**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UNBLE,**

Gap, Pa.

July 10<sup>th</sup>

**MCDANIEL & HORNER,****MANUFACTURERS, WILMINGTON, DEL.**

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

McDANIEL & HORNER.

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

**References.**

**NORRIS BROTHERS, Locomotive Builders, Philad.**

**A. C. GRAY, Prest. New Castle Manuf. Co.**

**U. WELLS, R. R. Car Manuf. Petersburg, Va.**

**I. R. TRIMBLE, Supt. Philad. R.R. Co.**

May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga**

**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**

**THOMAS DOUGHERTY, Master Mach. do.**

**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va**

**DURYEE & FORSYTH'S**

PATENT

**PLATFORM SCALES.**

WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec 27

HEWSON & HOLMES,

43 and 55 Walnut Street.

**THOS. M. CASH,****PHILADELPHIA RAILWAY AGENCY.**

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

**REFERENCES.**

**Richard Norris & Son, Locomotive Builders, Philad'a,**

**Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "**

**Charles H. Fisher, Esq. "**

**Jno. Caldwell, Esq. Pres't S.C.R.R. Co. Charleston, S. C**

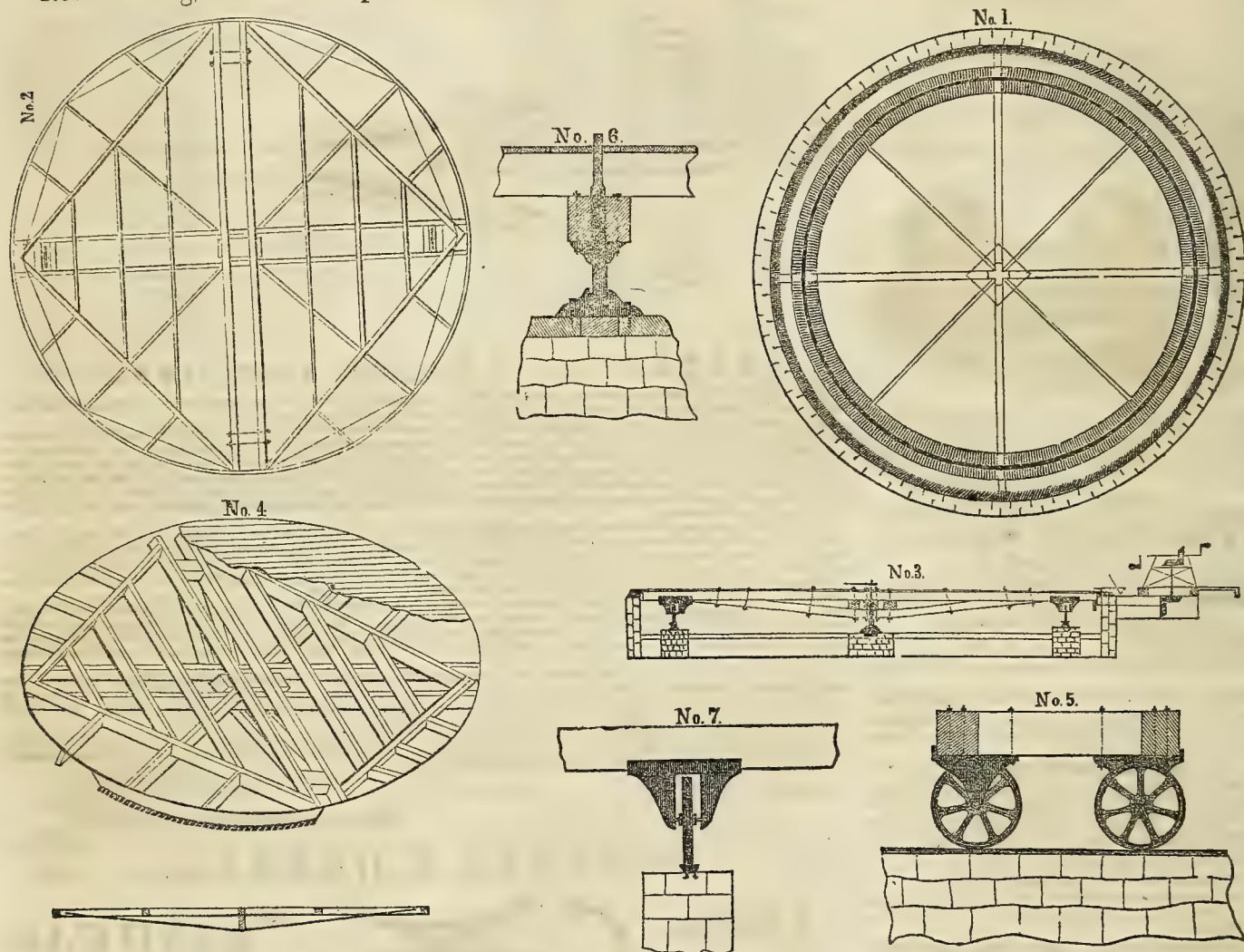
**Pinckney Huger, Esq., Pres't. N. E. R. R. Co. "**

Oct. 13-14.



# CARHART'S IMPROVED TURNTABLE.

Now building, for 13 Principal Roads in Ohio, Indiana, New York, New Jersey and North Carolina.



This Table, together with an Engine and Tender of 30 Tons Weight, can be turned by One Man in 25 Seconds.

RAILROAD COMPANIES in want of Turntables of a permanent and durable character, at a low price, are respectfully referred to the annexed references. The undersigned being confident that the manner of turning engines by his Table is the most permanent, expeditious, and cheapest in the United States, solicits the attention of Engineers, and others, to his improvement. The undersigned being a practical mechanic, and having devoted his time, for the past five years, exclusively to the construction of Turn and Transfer Tables, Draw and other Bridges, is prepared with every facility for executing orders in that line with promptness and satisfaction.

The price, which is always based upon the use of the best materials and best workmanship which can be procured in the market where used, can be determined only by the locality.

## REFERENCES:

New York & Erie Railroad Company.  
Hudson River Railroad Co.  
Ohio & Pennsylvania Railroad, J. Edgar Thomson, President, S. W. Roberts, Sup't and Engineer, Pittsburgh, Pa.  
Pennsylvania Central Railroad, O. W. Barnes, Resident Engineer, Pittsburgh.  
Toledo & Cleveland Railroad, Wm. Ferguson, Chief Engineer, Cleveland, Ohio.

Columbus, Piqua and Indiana Railroad, A. J. Conover, Chief Engineer, Piqua, Ohio.  
Cleveland, Zanesville & Cincinnati Railroad, W. H. Grant, Chief Engineer Akron, Ohio.  
Cleveland, Columbus & Cincinnati, and Cleveland & Erie Railroad, L. Tilton, Sup't, Cleveland, Ohio.  
Little Miami & Columbus & Xenia Railroads, William H. Clement, Sup't, Cincinnati, Ohio.  
Cincinnati, Wilmington & Zanesville Railroad, E. W. Woodward, Engineer, Circleville, Ohio.  
Central Ohio Railroad, G. W. Fulton, Sup't, and S. Medbury, Engineer, Zanesville, Ohio.  
Camden & Atlantic Railroad, and Dauphin & Susquehanna Railroad, R. B. Osborne, Engineer, Philadelphia.  
Bellefontaine & Indiana Railroad, W. M. Roberts, Engineer, Pittsburgh, J. Nottingham, Sup't, Marion, O.  
Cleveland & Pittsburgh Railroad, J. Durand, Sup't, Cleveland, Ohio.  
Wilmington & Raleigh Railroad, North Carolina.  
Central North Carolina Railroad.  
Cincinnati & Indianapolis Railroad, Indiana.  
New Albany & Salem Railroad, Indiana.  
Michigan Central Railroad, Michigan.  
Dayton, Xenia & Belpre Railroad, Ohio.  
Pomeroy Railroad, Engineer at Cincinnati.  
Springfield, Mount Vernon & Pittsburgh Railroad, Ohio, Charles Anthony President

## DESCRIPTION OF PLAN.

Fig. 1. of the above cut, represents the foundations, consisting of Bank and Track Walls, the latter made of cut, the former of hammer-dressed stone, with cut stone coping. The track is bent of the ordinary T rail, spiked and leaded to the stone track walls. The Center Pier is made of cut stone, with a step for screw and pivot bolted to the same.

Fig. 2, shows the framing.

Fig. 3, is a side view of Main Truss, with the mode of gearing including the mitre-wheels, iron crank frame, rack and pinion, foundations, pivot wheels and pedestals.

Fig. 4, gives a perspective view of rim, segments, decking, etc.

Fig. 5, is an end view of the main trucks, with pedestals and wheels.

Fig. 6, is a screw for pivot, 6 inches in diameter, working in a steel step, through a nut for adjustment.

Fig. 7, shows a cross section of track wall, well, and pedestal.

For further particulars please address,  
D. M. CARHART, Cleveland, Ohio.

## RAILROAD HOTEL. CINCINNATI, O.

THE GIBSON HOUSE, Cincinnati, is situated on Walnut-street, between Fourth and Fifth, in the immediate neighborhood of all the Railroad Offices. For comfort and convenience it is believed that this hotel is unsurpassed. It is heated with steam from the first floor to the fifth, thus making it the most desirable winter house in the West. The proprietor hopes to enjoy a share of the patronage of Railroad men.  
A. WETTERBEE, Proprietor.

## TO RAILROADS AND CONTRACTORS.

HORSE POWERS.—The undersigned being agents for the sale of R. H. Pease formerly Emery & Co.'s Horse Powers, are prepared to furnish them to order. They occupy little room and do their work effectually. T. WRIGHTS ON & CO.

## RAILROAD IRON.

I WOULD respectfully call the attention of Railroad Companies and Contractors to my facilities for NOTCHING RAILROAD IRON

Suitable to be spiked in the Chairs. My Portable Punching Machines, for which I received Letters Patent, enable me to make contracts for punching iron at a less price than can be done with any other Punching Machine now in use.

Orders solicited, and work executed in any part of the United States. Address, S. M'KENNA, Jan 11.-18. Box 103 Cincinnati P. O.



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING,.....AUGUST 16, 1855.

OUR EUROPEAN AGENTS FOR THE RAILROAD RECORD ARE  
Messrs. ALGAR & STREET, of the London Provincial  
and Colonial Newspaper Advertisement Office.  
No. 11 Clement's Lane,  
London, England.

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CINCINNATI. — There are none of our citizens but have regretted that it was impossible to obtain a view of our beautiful and growing city, that gave any thing like a proximate idea of its extent. All the attempts hitherto made have been most signal failures, having been undertaken from a point of observation where but a segment could be seen, without a distortion of the landscape. Of this class are the views from Pyro-Garden, the hills back of Newport, and Mt. Harrison, each of which however present a scene of rare beauty and are possessed of many advantages. All these difficulties have been overcome, and the advantages of each of the above different views combined in the splendid view taken from the hills at the west of Covington. This view gives us in all its fullness and beauty our extended river front, together with the spreading valleys of Mill and Deer Creeks and the hill side creepings on our east, west and north.

One word in reference to the artistic execution of the picture. Our enterprising friends Middleton, Wallace & Co., have succeeded in producing a lithograph superior to any French engraving of its character we ever saw. It is printed in oil colors, beautifully blended, almost equal to the best productions of our most eminent landscape artists, and when framed and varnished will be a suitable ornament for a parlor.

VOL. III.—No. 25.

## THE CROPS OF THE COUNTRY AND THEIR EFFECT ON INTERNAL COMMERCE.

The crops of the West, indeed of the whole country, are now known to be good. The WHEAT crop is good, but allowing for the injury of late wheat, by rains; and something by weevil, the wheat crop will not be more than what would have been a fair average crop for this year. The *average* for this year would be about 135,000,000 of bushels; and we doubt, whether the present crop comes fully up to that amount. However, there is no doubt of bread enough, and as compared with last year, a moderate price.

The OATS crop is a very great one. GRASS is good, as are in fact, all fall crops. The only crop, which is not now absolutely secure, in the Valley of the Ohio is CORN, and of this, we can say, that it is entirely beyond danger from drought. The only thing it needs is warm, dry weather; and this it will probably have during the last half of August and the first part of September. If the corn ripens well, there will be one of the heaviest crops ever known. Corn is the great staple of America, and it is the greatest staple of the United States. The *average* of this year should be something near (600,000,000) *six hundred millions of bushels*. In 1854 it was short more than 25 per cent; so that the crop, looking to the production of that year, as well as the partial failure, did not probably reach 400,000,000. This year it will be largely over the average; and there will hardly be less than 650,000,000 bushels! The difference between the production of corn in 1854 and the production in 1855 will not be less than *two hundred and fifty millions of bushels*! Now, this is *all* surplus, and will be transported to market in the shape of beef, pork, lard, corn in bulk, whisky, &c. Now one *half* of this will be carried on Railways. So there will be 40,000,000 of wheat additional, and of this three-fourths will be carried on Railways. In this way, we can *approximate* the additional amount of *freight* carried on Railways this season. The *tonnage* will be something like this:

Corn surplus.....	250,000,000 bushels.
One-half on Railways.....	125,000,000 "
Tonnage at 60 lbs. per bushel.....	7,500,000 tons.
Wheat additional.....	40,000,000 bushels.
Tonnage.....	1,200,000 tons.
Other additional surpluses.....	1,000,000 "
Whole additional Tonnage, for Railways, arising from production in 1855.....	9,700,000 tons.

It is impossible to say *how far*, on an average, this Tonnage may be carried; but, if we suppose that each ton averages 100 miles, and is carried at the rate of \$3.00 per 100 miles; then the aggregate sum will be \$29,100,000, and if the cost of carriage be 50 per cent, then the *net profits* to railways on the addition to crops in 1855, will be \$14,550,000, or 2 per cent on the entire cost of railways in the United States!

This result may seem extraordinary; but the data for the calculation are pretty accurate, and we believe that the results of the

fall, and winter traffic will fully vindicate our estimate.

Few are aware of the great falling off of railway traffic, on some of the lines in consequence of the partial failure of the crops last year. On such lines as the "Mansfield and Sandusky" and the "Ohio and Pennsylvania" the falling off, or the difference between the results of what was and what *would have been* was very great. The amount of produce carried over the "*Mansfield and Sandusky*" Railroad was not over *one-fifth* of what it would have been, with a full crop. Hence, we think, the property of that road much better than what many seem to think in view of its embarrassments. This leads us to say that the line of road, from *Sandusky to Newark* will in our opinion be much better, and more prosperous than is commonly supposed. It will eventually connect with the Ohio river at one end and with Lake Erie at the other, passing through a tract of country exceedingly various, both in agriculture and minerals.

The great benefit in the increase of crops, as it regards railways, will be to the Western lines. Such roads, as the *Ohio and Pennsylvania* the *Sandusky and Newark*, the *Ohio Central*, the *Cincinnati and Marietta*, the *Cincinnati and Indianapolis*, and the *Ohio and M. Railroad* will be immensely profited, by the change of crops. We should be in no way surprised to find the fickle opinion of the public, as inconsiderately wild, in favor of railway stocks as it has been against them. Stocks are sold according to the popular mind rather than their intrinsic value.

## OHIO AND MISSISSIPPI RAILROAD, WEST END. INJUNCTION GRANTED.

The application for injunction against the sale of this road under the deed of trust has been granted. The bond which was required to be filed before the granting of the petition of the city and county of St. Louis, to enjoin the sale of the Ohio and Mississippi Railroad, was presented to the Judge of the Common Pleas Court, and approved. Thereupon the order was issued restraining the sale of the road by the Trustee. The bond was signed by Mayor King, on behalf of the city, and by Judge Hackney, on behalf of the county, with the addition of the following names: John O'Fallon, J. B. Brant, Edward Walsh, P. Chouteau, Jr. James Harrison, D. D. Mitchell, Chas. L. Hunt, R. J. Watson, A. Christy, Wm. C. Taylor, B. W. Alexander, L. M. Kennett, Isaac H. Sturgeon, Girard B. Allen, John How, T. T. January, Jno. F. Long and John Sappington.

The allegations of the bill besides reviewing the question of illegality on the part of the board, states the belief of the complainants that the debt of Page and Bacon if it exists at all is not more than \$500,000, that the complainants have been refused information that they could reasonably expect, and



that all access to the books, papers and accounts of the company has been denied. These are grave charges and we trust the Chamber of Commerce who have taken hold of this matter will make a thorough and searching examination and report of the present condition and previous actions of the road. Such a report is needed and will be of service.

We learn that a deed of lease of the O. & M. Railroad, for fifteen years, was executed in St. Louis, Aug. 13, to Capt. Geo. W. Jenks.

The lease conveys all real estates, tenements, road tracks, bridges and rolling stock whatsoever of the company, with the right to collect all tolls, incomes, profits, &c.

Jenks the Lessee, agrees to pay the interest on the first and second mortgage bonds, during the continuance of the lease; to keep the road in good repair; to expend within the next five years, five hundred thousand dollars in increasing the rolling stock and general facilities; to operate the road so as to accommodate all public demands; to pay the company 25,000 dollars per annum, after the expiration of the first five years of the lease, and to surrender all into the hands of the Company at the end of fifteen years. The road will be put in operation as soon as the indebtedness along the line is paid.

#### OUR POSTAL SYSTEM—GOOD REASONS WHY SUBSCRIBERS COMPLAIN.

We ask the attention of the Post Office Department to the following letter, from a subscriber in Hartford, Conn. We have had frequent complaints of a similar nature, and trust they may hereafter be avoided. We know that the papers have been regularly mailed.

HARTFORD, CONN., Aug. 7, 1855.

ED. R. R. RECORD—Gents:—Yours of July 7th is received. I enclose you one dollar for the Railroad Record for one-third of the year. I should have continued to take the Record if it had come to me regularly; but it has never come regularly since it has been sent to Hartford, and all of the numbers have never been received, which is probably owing to the neglect of the Post Office officials.

Respectfully Yours, \* \*

#### CENTRAL OHIO RAIL ROAD—EXTENSION TO WHEELING.

We learn, says the *Zanesville Courier*, that "at the meeting of the Directors of the Central Ohio Railroad Company, held in this city yesterday, it was resolved to extend the line of the road up to Kirkwood, opposite to Wheeling, without delay; and we understand that measures were taken to enable the company to contract for its completion to that point by the first of December next.

"It is, we believe, expected by their Directors that the Cleveland and Pittsburgh and the Hempfield Railroads will be finished by

the first of April;—the first named ending at Kirkwood, and the latter at Wheeling. With this fact in view, the action of the Board yesterday, will be understood and appreciated."

## Correspondence.

CLARKSBURG, VA., Aug. 9, 1855.

MR. EDITOR:—I am about to suggest some ideas which may seem very visionary and wild at first; but which, nevertheless, have a show of plausibility about them when they are calmly reflected upon.

The cost of constructing railroads through such rough countries as this North-Western Virginia, where there is much tunneling and bridging, may be diminished twenty per cent. by doing away with what seems to me to be, those useless appendages on the locomotives and cars which require so much vertical area in tunnels and bridges. Suppose we bring the smoke stack down to a height of ten feet and the cars to a height of nine feet; this would leave enough vertical space in the cars for the accommodation of passengers and two and a half feet for them to be above the rail. It would require an entire change of form of cars, and an entire change of form, simply, of locomotives. The principle would remain precisely the same. The engine, to bring all of this working apparatus in so little space with respect to height, would of course require space, with regard to length, in the same proportion; so that the power of the engine would not be diminished. This change would interfere with the comforts of the traveling public to a very small extent; but what consideration is that when we reflect that by using the same capital we would have used without the change, we have twenty per cent. more railways; that our country, upon the same principle, is benefitted twenty per cent. more than it would have been. I say twenty per cent., but it cannot be very accurately estimated. On our road, the North-Western Virginia Railroad, the engineering of which is of the boldest and grandest description, we have twenty-one tunnels, all excavated eighteen and a half feet high. I suppose the total length of tunnel excavation, on this road, to be about four and a half miles. The four and a half miles finished, I suppose to cost \$1,500,000. Now, the area of these tunnels, if excavated for the proposed engine and cars, would be decreased about one-third, and would accomplish a saving of \$500,000 or 15 per cent. of the whole cost of the road, equipped and opened for traffic. In addition to this, it would, in many cases, be cheaper to tunnel for the proposed locomotive and cars than to excavate cuts for the old plan; for which saving, as well as the saving in bridge superstructure, I

propose to add five per cent to the estimate made for tunnels.

There, Sir; I have shown by actual data gained upon one road, how a saving of one-fifth may be made in the construction of railways through rough countries like this; and it only requires some of our capitalists to embrace the scheme to make it entirely successful.

Taking the data of this railroad and applying it to the Baltimore and Ohio Railroad, they would have saved \$4,500,000 if this proposed engine had been in use; more than enough money to build a road like this North-Western Virginia Railroad, and fully enough to relieve them of all embarrassments.

If I have made myself sufficiently understood to induce railway-men to reflect calmly and without that prejudice which makes them cling so pertinaciously to an old idea. I have accomplished all that I hoped to accomplish by this communication.

CHAS. McCALLY, Civil Engineer.

## Railroads.

#### MISSISSIPPI CENTRAL R. R. CO.

At the date of the last report of this company, the road was under contract to Messrs. Healy, Holman, Sims & Co., who had undertaken to complete the whole road 183 miles, with side tracks and equipment, for the sum of \$3,262,500. A portion of which was to be taken in the stock of the Company. On the first of January, 1855, the Directors took charge of the work of construction, and the contract with Healy, Holman, Sims & Co. was cancelled with the consent of all parties. The plan of operations adopted by the Directory, was to push the work on the Northern and Southern sections to as speedy a completion as possible, in order to make these portions of the work profitable for use, and the procuring of materials for the completion of the middle sections. With regard to this the Directors say; "the completing and putting in operation the road by sections progressing from the North and the South, insures the most judicious and economical mode of construction, and will render the capital expended to some extent profitable, at the same time, it will open for the public an indirect railway communication with the Mississippi River at Vicksburg and Memphis, until a more direct communication shall be opened to New Orleans by the completion of the New Orleans and Jackson road; thus offering a certain and speedy means of transporting to market the productions of an extensive district of country, and providing some protection against the heavy losses sustained by our citizens during the past and previous seasons, originating in the low stage of water in our navigable streams, and the consequent inaccessibility of a market.



"The Chief Engineer estimates the cost of the entire road at \$2,500,850 57, exclusive of Rolling Stock, Station Buildings and Incidental Expenses.

"The necessary Engines, Passenger and Freight Cars, for the first equipment of the road are estimated to cost \$227,600, and making the entire cost of the road, including the first necessary equipments and exclusive of Station Buildings and incidental Expenses, \$2,788,459 57, or \$14,912 00 per mile.

"There is included in this estimated cost, the construction of  $4\frac{3}{4}$  miles of road between the State line of Tennessee and the Memphis and Charleston Road, amounting to about \$70,000. All previous estimates having been based on the construction of a road from the State line of Tennessee to Canton, a distance of 183 miles.

"There has been work executed on the roadway to the first of the present month, and materials furnished for the superstructure, including sums paid for right of way, to the estimated amount of \$620,326 19, and there remains to be expended, of the estimated cost of the road, the additional sum of \$1,930,525 48.

"Of the estimated cost of equipments, \$27,612 43 has been paid for that now on hand, and leaves the sum of \$199,987 57, to be applied to the purchase of that which may hereafter be required.

"It is believed that the income from the several divisions of the road that may, from time to time, be completed and put in operation, will equal, if not exceed, the necessary cost of such economical buildings as may be required for the transaction of business, and the payment of all incidental expenses hereafter incurred. If this belief should be verified, then the amount necessary to be hereafter expended to complete and equip the road is \$2,130,511 95.

"The assets of the Company, to meet this addition estimated outlay, are as follows:

Individual subscriptions to the Capital Stock of the Company.....	\$1,039,900 00
County subscriptions, payable in five and six annual instalments, by direct taxation on the taxable property of the respective Counties.....	450,000 00
Subscription of the Memphis and Charleston Railroad Company.....	100,000 00
Amount of Bonds of the State of Tennessee, to be received from the Mississippi Central and Tennessee Railroad Company, so soon as 30 miles of that road is prepared for the rails.....	50,000 00
	\$1,639,900 00
Estimated amount yet to be derived from sales of Internal Improvement Lands... Stock to be taken by the Contractors in part payment of work executed and to be executed.....	240,000 00
Assets in the hands of the Treasurer, over the present liabilities of the Company..	16,219 74
Making total assets to the amount of	\$2,046,119 74
From this sum must be deducted payments heretofore received on account of subscriptions to Capital Stock..	\$642,583 27
Also such subscriptions to Capital Stock as may be now, or hereafter become worthless from any cause, say.....	100,000 00--\$742,583 27
There remains the sum of.....	\$1,303,536 47

applicable to the future prosecution of the work, and exhibiting a deficiency in the means necessary to complete and equip the road to the amount of \$826,975 48.

"The work now under contract has been undertaken by planters—citizens of our own State, all of whom are now actively engaged in its prosecution, and are stimulated by an interest in the success of the enterprise far greater than that originating in profits they expect to realize by a compliance with their engagements. There is a prospective benefit they hope to derive by the completion of the road, that far out weighs other considerations with them.

The President recommends that "Passenger and Depot buildings for the accommodation of passengers, and for the protection of property committed to your charge, should be erected at an early day, at the several stations, on such portions of the road as may, from time to time, be in readiness for operation. The amount of passenger and freight traffic will always be affected in a greater or less degree, by the accommodations provided for the traveller, and the safety and expedition with which freights are transported and delivered.

"Your interest will be promoted by the early erection of suitable machine shops, and the procurement of tools necessary for the repair of your engines and cars.

"It is deemed advisable that measures soon be adopted for the erection of bridges over the Tallahatchee and Big Black Rivers, so as to avoid detention in laying down the superstructure whenever it is extended to those points.

"Depot grounds have been secured at all the principal stations on the line of road at an inconsiderable cost. It is necessary that others be secured at intermediate stations, so soon as the most eligible sites can be selected."

In discussing the question as to the best mode of obtaining the \$826,975 48 of expenditure over and above the means of the company, the President deprecates the issuing of bonds, till another effort has been made to secure further stock subscriptions. He says; "there is no Agricultural district in our country that possesses a greater amount of pecuniary ability, in comparison with its population, than the one that will become tributary to your road. With a yearly export production that would, at present prices, be valued at not less than \$6,500,000, to which the construction of a railway will impart a large additional value to the producer, why resort to another land, and to another people, who only measure their interest in a public work by the per centum they may obtain for the use of their capital, for the aid which you need, until every hope of obtaining it from our citizens is exhausted. Every additional dollar of reliable local subscriptions to the

capital of your Company, will not only reduce the amount of the bonds you will find it necessary to issue, but will impart additional value to your securities, if economically and judiciously expended. The value of your bonds, when offered for sale, will be measured by the amount you intend to issue, your available capital, and the amount of local subscriptions you may then have expended on the work.

"The rock on which so many Railroad Companies have stranded, has not been the necessary cost of their respective roads, but it was the ruinous sacrifice to which they were compelled to submit in the sale of their securities, originating in the absence of liberal local subscriptions and the judicious expenditure of local capital on the works they had undertaken to construct."

The following reliable information as to the progress of connecting roads will be read with interest. It is contained in the President's report. "From a reliable source I learn that it is now expected the Mississippi Central and Tennessee Road, being the direct northern continuation of your road to Jackson, Tenn., and over the Mobile and Ohio Road to the Ohio river, will all be in readiness for the superstructure next winter. Half of the local work on the Mississippi Central and Tennessee Road is now completed. This Company possesses abundant ability to press their undertaking to a speedy completion. They have it in anticipation to continue their road to Huntington, Tenn., in a direct northern line to the Ohio river, there to connect with the North Western Road from Nashville to Hickman on the Mississippi river.

"It is anticipated that the road-bed of the Mobile and Ohio road from Jackson, Tenn., to the Ohio river will be completed and in readiness for the iron rails by November next. In the present advanced stage of the work on these two roads, and from the well known energetic character of those who have the management of both, there exists no reason to doubt their being in full operation during the summer of next year.

"The Memphis and Charleston Road, which yours intersects near La Grange, Tenn., is fast progressing towards completion and it is expected that it will all be in full operation next year, thus opening an uninterrupted railroad communication, from the northern terminus of yours, to all the southern Atlantic cities and to the Mississippi river at Memphis.

"That portion of the New Orleans, Jackson and Great Northern Railroad between Canton and the city of Jackson it is expected will be in operation by November next, and will open a railway communication with the Mississippi river at Vicksburg on the South, and will facilitate the transportation of iron for the southern division of your road.



"There is now in operation about 88 miles of that portion of the New Orleans, Jackson and Great Northern Road between the cities of Jackson and New Orleans. An additional 24 miles will be added to the track during the present year, and confident hopes are entertained that the entire road to the city of Jackson will be completed within two years from the present time.

#### DAYTON & CINCINNATI (SHORT LINE) R. R.

Our readers will remember that in the last report of this company, it was made a question for the decision of the stockholders, how fast the work on this road should progress. After a careful review of the prospects of the road, it was determined to hasten the work to completion during the coming year. The stockholders further determined to raise additional stock to the amount of \$250,000 to be applied *solely to the payment of the interest of a loan of one million dollars secured by first mortgage bonds.* This amount, we learn from reliable sources, has been subscribed, and the President of the road is now in the East to negotiate the loan.

From the character of the work itself, affording as it does the only *direct* approach to Cincinnati on the North, and from the number and character of the roads that must seek a connection with it, this road when completed cannot fail to be a profitable one. And with this additional \$250,000 of stock subscribed for and applicable only to the payment of the interest of the first mortgage bonds, these bonds cannot fail to enlist the confidence of capitalists; they must of necessity be considered as affording the best security that can be offered in the market.

#### PULASKI COUNTY BONDS, ARK.

We learn that on July 23rd the county court of Pulaski county, Ark., made the final order for the issue of \$100,000 in county bonds and ordered it to be invested in the Memphis and Little Rock Railroad. Roswell Beebe, President of the Cairo and Fulton Railroad, to which company this subscription was originally made, filed his protest against the order.

#### BUFFALO BAYOU AND COLORADO RAILROAD, TEXAS.

The *Houston Telegraph* says.—We are just in receipt of a circular from Mr. John A. Williams, superintendent of the above Railroad, which states that the work on the extension of the road from Stafford's Point to Richmond is being pressed forward with the utmost vigor by the energetic contractors, Messrs. Kyle and Terry, and that the work will be completed in time to enable the merchants and planters to order their fall supplies by that route.

The Company, with a laudable anxiety for

the early completion of the work, have offered the contractors an additional sum of \$100 a day for each day the road shall have been completed prior to Oct. 1st, so that the public may rely upon its completion within the month of September in, any event.

We are glad to see such a spirit evinced by this Company, and hope their efforts will be promptly seconded by those who are to be benefitted by the road. Prompt material aid now, when the Company have made so many sacrifices to bring the work to its present successful issue, and while the public have the amplest assurance of its extension to the Brazos at an early day, is but a matter of sheer justice to the Company.

#### TO THE STOCKHOLDERS OF THE GALVESTON AND RED RIVER RAILROAD, AND THE CITIZENS OF TEXAS.

Two years have elapsed since the organization of the Galveston and Red River Railway Company. The first was almost lost to the company, in consequence of the failure of the contractor who had undertaken the work. Soon after the last annual election another director and myself were empowered by the Board to proceed to the Northern States and Europe for the purpose of effecting negotiations to carry on our enterprise. Soon after our arrival in New York, and upon the eve of opening negotiations, the immense frauds of Messrs. Schuyler, Kyle, and others, which put a check to, and closed every avenue of approach to capital, were discovered. After the first excitement had become calmed we determined to empower one of our efficient Northern directors to proceed to Europe, in August last, together with our Engineer in chief, who brought our plans before the attention of some European capitalists. They would then have accomplished their object, notwithstanding the existing stringency of the money market, caused by the European war and high price of breadstuffs, such was the favor that our enterprise met with, but it was suggested by parties who were willing to entertain our proposition, that for the present, before applying abroad for capital, it would be well for us to show a disposition to help ourselves, by first finishing and equipping twenty-five miles, thus securing the land bonus granted by the State, of 10,240 acres per mile. Under these circumstances, our agents have obtained a hearing from rich bankers of Europe, determined to suspend negotiations and endeavor to effect something within ourselves. I am most happy to congratulate you on the returning confidence abroad in American securities, and the present brighter prospects before us.

Recently the company have closed a contract for the construction and full equipment of twenty-five miles, with J. H. Welles, Esq., of New York. The high character and standing of this gentleman leaves no doubt of its fulfillment in time to save the land bonus granted by the munificence of the State. When this section is completed there can be no doubt of the further speedy progress of the line.

The railroad system, once started under the auspices of corporations, and directed towards the rich agricultural districts tributary to us, and which have built up our city to its present commercial importance, will soon de-

monstrate to the satisfaction of the planters and business men of our State, the necessity of aiding, with all the means in their power, the extension of this great trunk line to Fulton, on Red River, connecting with the Cairo and Fulton road, which here connects with all the Northern and Western lines of the Union. From the junction of the Brazos our line will run direct to Austin. These lines will accommodate the most fertile and densely populated portion of our State.

Good results may be looked for from the Convention recently held at Lagrange, as that honorable body were almost unanimous upon the necessity of turning their attention towards Houston, affording, as it does, uninterrupted communication, by water, with the bay, the year round. May we not then be able, with the liberal subscriptions promised for our western line, soon to reach the city of Austin. No doubt rests on my mind that by unanimity of action this road can be built simultaneously with our progress on the Red River route.

I fully agree with the friends of what may be termed the State plan, as to the necessity of consolidating lines as far as possible; and with that view we have adopted a gauge in conformity with those of Louisiana, Arkansas and Missouri, of five and a half feet; as it is well understood that a break of gauge is equal to the crossing of a large river. Our engineer has made a most careful examination of the Brazos river, and found several good crossing points, out of the reach of high water on one side. Tressel work, on the other side of the river, will not be required of a greater height than from three to six feet, for a distance of less than a mile. This occurs at Cochran's Shoals and several other points between them and Hidalgo. It is contemplated, after reaching the Brazos timber, to take steps to forward our work beyond the Brazos to Austin simultaneously with their progress towards Red River. This can be done without embarrassing our Red River line, and subscriptions taken upon either route can be made applicable to that line only. The first point, therefore, is to concentrate on the main trunk to the Brazos timber. This section will accommodate a greater extent of productive country than any road of its length in the Union, and must pay accordingly.

The subject of this State's engaging directly in a system of railways, seems to be absorbing the attention of several citizens of Galveston, as well as the influence of a portion of her press. Experience has taught us that a state never should interfere or bring its interests in direct conflict or competition with its citizens who may be engaged in transportation. She should foster and encourage lines of roads that are actually needed to develop the vast natural resources within her limits. However, as the voice of the people has spoken in trumpet tones against the Quixotic enterprise of the State's engaging directly in the building of fifteen hundred miles of railway, as proposed by the Galveston committee; and as such a scheme will doubtless receive its quietus at the polls in August next, we will not occupy your time discussing it. From all parts of the country we receive assurance that there will not be a corporal's guard elected to the Legislature to do it honor. The plan, so far as my observation has extended, has been repudiated by nearly all the leading men and papers in this State.



## TAXATION.

Taxation should be voluntarily imposed. Let the various counties that will be immediately benefitted by the construction of our railway, adopt the following or a similar plan:—Say, pass a general law, authorizing, upon the petition of a certain number of tax payers, the Chief Justice of each county to order an election of five commissioners, (the office to be one without emolument) of a fund to be raised by voluntary taxation, say of 25 cents, (or 50 cents, as in New Orleans), on the hundred dollars' value as per assessment roll, for the term of five years, or less if the line shall have been completed. The same to be assessed by the county officers; and the said fund to be styled "The Internal Improvement Fund" of Harris, Austin, Brazos, Fayette county, etc., etc. The moneys so raised to be under the direction of the Commissioners, and paid over to the company designed to be assisted, upon which payment the Company could issue stock whenever the tax amounted to \$100; and for all fractional amounts script could be issued which would command and find ready sale in market.

There are many citizens who are never known to aid public works, however much they may be benefitted by their construction. This has ever been the case, and will be to the end of time. They tie up their purse strings and hold off, waiting for the industry and enterprise of their neighbors to carry forward to a successful issue works of real practical utility, from which they derive direct profits in business as well as comforts, and not unfrequently are made rich without expending or contributing a single dollar. The system of taxation recommended will reach them, though lightly, and compel them to disgorge a small portion of their ill-gotten gains. I hold, that each county through which roads are now proposed, can, by the aid of such an equitable tax, together with voluntary subscriptions, complete the grade, furnish their ties, build their depots, bridges, culverts, in fact prepare their road for ironing. After carefully examining all the plans that have commanded attention, my mind remains unchanged as to the necessary aid the State can safely lend to private companies, and much reflection has served to convince me that after any company shall have built and placed in running order fifty miles of road, the State will be perfectly safe in loaning on their bonds with first mortgage, say to the extent of six thousand dollars per mile, bearing six per cent. interest, payable semi-annually.

A proviso could be inserted in the act, that provided the company fail or refuse to pay interest due the State, upon such failure, the State's Engineer to be empowered to take possession of the road, and run the trains until the interest of the State is secured. The loan policy urged upon the legislature at the two last sessions is the best that can be devised to effectually aid companies. Sift it as you may, it will be found to present fewer objections than any other plan that has been proposed for the consideration of our people. It is based on equity. There exists such a diversity of interest to serve, this policy being free and open to all sections. None can say that special advantages have been given to this or that section; or, that the great benefits of the law have not been equally felt. There is now, locked up in the treasury, two millions of U. S. fives, which now command in market 6 per cent. premium.

These bonds are running to maturity and are not adding to their value. To what better purpose could they be applied than being invested and secured on lines of railway within our State? Thus adding largely to the interests of the School Fund annually by increasing its revenues, first by premiums on bonds \$120,000, and \$27,000 annually in interest over that now received; making the handsome amount of \$364,800 for the next 9 years and added to the school fund, beside the increased amount to be received in the treasury from the enhanced value of lands, one-tenth of the revenue being set apart for the purpose, this fund will be greatly augmented. Let the friends of education rally at the polls in August next and elect no man unless pledged to support a measure designed to aid so materially as this the cause of education, and thereby increase the means of promoting it, by adding largely to the School Fund. Nothing so certainly contributes to the education and civilization of a people as railways. It dispenses blessings to the poor as well as rich. It enables the planter, or merchant from the most remote portion of our State to bring his own produce to market, and speedily and safely carry back his supplies. It educates the people by giving them opportunities to improve their moral, social, and political positions. It educates the people by enabling the frontier man to visit the coast counties and witness for himself the various improvements in agriculture, building implements, living, etc. By a free interchange of opinion we become familiar with each others views and wants; by promoting an exchange of commodities: thus, the Southern portion of our State supplying the upper with sugar, molasses, etc., while the Northern and Western supply as freely the cereal grains, bread and meat, returning in the country thousands and thousands of dollars annually, that are sent now abroad.

## NEGRO LABOR.

Another means exists to aid materially in furthering the object we have in view. Let us now ascertain the profits to accrue from the plan that has been tried in Georgia, Carolina, and Alabama successfully.

An able-bodied negro, having the advantage of being able to work daily during the extreme heat of Summer, say 300 working days, assuming that he removes 12 cubic yards per diem, makes 3600 yards per annum, amounting to \$454. The price paid the contractor varies according to the kind of soil, from 10 to 21 cents per cubic yard. Now, as there exists an unparalleled pressure in the monetary affairs of our people, and considering the great benefits to accrue by a vigorous prosecution of our railway, let me respectfully urge upon the attention of our planters the necessity of placing part of their force on the line of our road, under the superintendence of overseers or managers who may be appointed, and work out the subscription they may have made or are disposed to make to the road. In order to effect this object how easy it is for the planters of each settlement to arrange the force they can put upon the road. Let them work in gangs of 30 to 50 hands, under charge, and they will soon be drilled. I verily believe they will be able to do work equal to what may be required.

This plan has been tried in the old States with entire success, and several contractors have grown rich under it. What may be considered the profits of the labor of one hand may be found as follows:—

Actual value of an able hand, \$1000.	
Interest 8 per cent.....	\$80 00
Clothing a hand.....	25 00
Physician's bill and food.....	65 00
	\$170 00
If hired at \$15 per month.....	\$180 00
Food and Doctor's bill.....	65 00
	\$245 00
Amount of labor performed by each hand.....	\$450 00
Expenses.....	170 00
Net profit should be owned by contractor.....	\$280 00
Net profit of a hired hand.....	205 00

This calculation refers to the earth work. Now in getting timber the profit of one gang of hands was equal to \$600 per hand, the planter can thus make a most meritorious work, yield him a larger profit by the labor of his hands than by raising cotton or sugar.

I feel well convinced that should the above suggestions be acted upon promptly by our people, we shall soon be enabled to extend our Northern line from the junction of the Brazos towards Fulton on Red River, while our Western branch is in progress to the city of Austin.

With much respect,

Your obedient servant,  
P. BREMOND.

## FLORIDA RAILROAD.

We learn from the Jacksonville Republican that on Monday morning last, Mr. L'Engle, with a full corps of assistants, commenced the survey of the line of the Florida, Atlantic and Gulf Central Railroad, from that place to Alligator. He is of opinion that he will be able, in the course of six weeks to furnish to the Directory full and complete profiles and maps of the route for their examination. The friends of the enterprise have good reason to hope that, ere long, the route to Alligator will be under contract for construction.

We learn from the same paper that at a meeting of the Directors, held at Jacksonville on the 19th inst., it was resolved that the Secretary notify the President and Directors of the Georgia and Pensacola Railroad Company, that the Directory of the Florida, Atlantic, and Gulf Central Railroad Company have unanimously ratified, confirmed, and adopted the action of their delegates to the conference held at Alligator on the 24th of June last, and have accepted the pledge then made from said Georgia and Pensacola Railroad Company, and desire a similar expression from them, if they feel disposed to give it. — *Charleston Mercury*,

**RAILROAD IRON.**—The ship Hartford, says the Galveston *Civilian*, arrived at that port on the 5th inst., with a cargo of iron for the Houston road. It may be expected up in a few days. The work of laying down the rails will soon commence. The grade is very nearly completed, and the ties are being gotten out and delivered as fast as possible. Two saw mills and some 175 hands are engaged in getting out timber. The senior editor is again soliciting subscriptions in the country above, and it is to be hoped that the appeal will be generally responded to with liberality, as upon the result, depends the immediate prosecution of the second section of the road, which it is important should be completed within the next fifteen months. If the planters of Austin, Washington and Grimes do their part, fifty miles of the road will be in running order in time to carry off the next crop. The section now under contract will be finished by the 20th of January and probably earlier — *Houston Telegraph*,



## Miscellaneous and Mechanical.

### NORRIS' LOCOMOTIVE WORKS, PHILADELPHIA.

The Norris' Locomotive Works as the pioneer locomotive shop of the country and one which has kept pace with the age has many points of interest. It is interesting to observe the growth and development of any business, particularly one which has so much to do with the comforts and convenience of our lives as the locomotive business.

Twenty-four years ago on the 31st of March this establishment was begun. Since then it has lived through every vicissitude of the railroad interest and at the present time is a mammoth concern. It occupies the halves of two squares and part of another. The old shop which has been added to from time to time has little pretensions to appearance. It is, however, conveniently arranged for the particular branches that are carried on there. It contains the brass and iron moulding rooms and some of the polishing rooms. The new buildings on the adjacent squares are larger and more roomy, built with reference to the modern comforts of a workshop. Much of the machinery is of superior kind. The planing room contains twenty-five horizontal planing machines, eight slotters and two shaving machines. As you look down the long row of machines each turning out its piece of work, the scene is at once a busy and interesting one. One of the machines which most attracts the attention is a large drill manufactured by Whitworth, of Manchester, England. Like all other English machinery it possesses the element of *solidity*. Although the arm has a swing of about five feet ten inches not the slightest tremor is to be seen in the heaviest borings. There is also here a machine for quartering wheels. Many establishments trust to the accuracy of the workman in measuring the quarters. This of course can only be a rough way of dividing. This machine divides with perfect accuracy. Hence whatever advantage there is in accurate division is sure to be gained here.

One of the most interesting features of this whole establishment is the care exercised in obtaining material. Nothing is more important in manufactures than the quality of material employed, and the importance of this should be appreciated by every one. In order to secure a first class plate iron for their boilers the Norris' became interested in a rolling mill at a distance from Philadelphia whence they procure an iron on which they can rely. For their frames and other purposes they use scrap iron. In the forge room there are two reverberating furnaces where these scraps are heated and worked. The thorough working thus insured gives a purer and stronger iron than is usually obtained in the markets.

**SPINNING BRASS ORNAMENTS.**—Every one admires the beautiful brass ornaments with which the locomotives of the present day are adorned, the acorns, the globes, the beautiful cylinder covers and the endless variety of devices that are used to give beauty to these otherwise beautiful machines. Yet few realize that these beautiful ornaments were once plain sheets of brass. Such, however, is the fact and these sheets of brass pass through no other process than that of spinning. The spinner takes a circular dish of sheet brass and by ingeniously holding it to a revolving chuck spins it into forms that, one not used to seeing such transformations, would hardly believe possible. These works can produce *three locomotives* a week. They have, however, never been worked to their full capacity. The largest number ever made in one year was 106 in the year 1853. The average number of men employed that year was 1340. Up to July, in the present year, they had finished forty-three locomotives and had ten in process of manufacture.

**BITUMINOUS COAL OF THE BROAD TOP MOUNTAIN.**—As yet, the great Pennsylvania Central Railway has not done any coal business; but a beginning is about to be made by means of the connection opened with the Broad Top mines. These are said to be most prolific, and promise when fully worked, to increase very largely the coal trade of Philadelphia. In quality the coal itself is described as resembling that of the Cumberland mines, the product of which has, of late years, increased so rapidly. We do not apprehend that it can ever come into serious competition in the same markets with anthracite, for domestic purposes, but as the demand for the latter has increased far beyond the supply, in consequence of the rapid multiplication of people, there is a fair field for bituminous and semi-bituminous coals to supply factories, steamboats, etc. Practically these Broad Top mines are as near to tide water at Philadelphia as are those of Cumberland to tide water at Baltimore, and therefore the same reasons which have operated to swell the product of the Cumberland mines ought to cause an equal prosperity for the trade of the Broad Top region. During the year 1853 the product of the Cumberland mines was 533,980 and in 1854 the shipments exceeded 600,000 tons. The increase of this trade has no doubt been stimulated by the facilities offered by the Baltimore and Ohio Railroad for conveyance to market, as of the whole amount shipped from that region in the year 1853, the railroad carried 376,220 tons. Up to the present time the Broad Top mines have been without any railroad facilities but as a railway from the mountain, to connect with the Pennsylvania Central, is now nearly completed, we may expect a speedy development of the wealth of the region. It would not require much of an extension of the Broad Top Railway to reach Cumberland mines, and so put Philadelphia in direct communication with the vast stores of mineral wealth found there. If the Pennsylvania Railroad were desirous of seeking this rapidly increasing trade, it might be obtained without much outlay, and added to the Broad Top coal trade would prove of immense profit, not merely to the main road, but to Philadelphia.

### CONSTRUCTION AND PROPER PROPORTIONS OF BOILERS FOR THE GENERATION OF STEAM.

Mr. Muir, in his paper on the Smoke Nuisance, read before the Society on the 17th of January, referred, and other parties have done the same, to a want of definite rules for the relative dimensions for the flues and other parts of steam engine boilers. In 1844, in a paper read before the Institution of Civil Engineers, Mr. Andrew Murray gave the results which he had arrived at, on these points, after long observation and much consideration. As his experience since 1844 has confirmed him in the opinions then expressed, he has enclosed to the secretary a copy of the paper, from which the following extracts are taken.

"The supply of the requisite quantity of air to the fuel on the bars, being of the utmost importance, it is usual to make the ash-pit, and the entrance to it, as large, and as free, as the situation will allow. In marine boilers, or wherever it is necessary to limit the size of the ash-pit, the area for the entrance of the air into it, should never be less than one-fourth part of the area of the grate, and in order to facilitate the supply to the back part of the grate, the bars should be made to incline downwards to the extent of about one inch in a foot. No advantageous results will be obtained from increasing the ash-pit, as is sometimes done in land boilers, to a very great extent, by making it five or six feet deep; about two and a half feet is sufficiently deep, even supposing that the ashes are not cleared out oftener than once a day.

"The extent of "dead plate" in front of the furnace is not material, as respects combustion; in marine boilers, it is generally not more than about six inches broad, which is the width of the water space between the fire and the front of the boiler; but in land boilers it is frequently required to be very broad, to support the brick-work, especially in those cases where the flue is carried across the front.

"The amount of the opening between the bars, should be about seven-sixteenths of an inch, but this must be regulated by the kind of coal to be burnt upon them; but for any kind of coal, it should not be less than three-eighths of an inch, nor more than half an inch. If the space were made larger, the waste from the amount of cinders, or of small pieces of coke, which would fall through in a state of incandescence, would be considerable; otherwise it would be preferable to have a larger space. In order to facilitate the supply of air, each bar should be as thin as is consistent with the strength required. The bars in general use in this country, are one inch or one one-eighth inch in thickness, but it would be much more advantageous to use them thinner, as in France, where they are frequently used not more than one-half inch thick.

"The advantage of a considerable amount of space in the furnace, over the fire-bars, has been already mentioned, but no very decisive experiments have been made on this subject. Three cubic feet of space to each superficial foot of grate bar surface, may be stated as a good proportion where there is nothing to prevent this amount obtained. When the space is reduced below one foot and a half to each foot of grate, it will be found to be attended with a marked disadvantage.

"The area of the flue, and subsequently



of the chimney through which the products of combustion must pass off, must be regulated by their bulk and their velocity. The quantity of air chemically required for the combustion of one pound of coal, has been shown to be 150.35 cubic feet, of which 44.64 enter into combination with the gases, and 105.71 with the solid portion of the coal. From the chemical changes which take place in the combination of the hydrogen with oxygen, the bulk of the products is found to be to the bulk of the atmospheric air required to furnish the oxygen, as 10 is to 11. The amount is therefore 49.104. This is without taking into account the augmentation of the bulk due to the increase of the temperature. In the combination which takes place between the carbon and the oxygen, the resultant gases (carbonic acid gas and nitrogen gas) are of exactly the same bulk as the amount of air, that is, 105.71 cubic feet, exclusive, as before, of the augmentation of bulk from the increase of temperature. The total amount of the products of combustion in a cool state would therefore be

$$49.104 + 105.71 = 154.814 \text{ cubic feet.}$$

"The general temperature of a furnace has not been very satisfactorily ascertained, but it may be stated at about 1000° Fahrenheit, and at this temperature, the products of combustion would be increased, according to the laws of the expansion of æriform bodies, to about three times their original bulk. The bulk, therefore, of the products of combustion which must pass off, must be  $154.814 \times 3 = 464.442$  cubic feet. At a velocity of 36 feet per second, the area, to allow this quantity to pass off in an hour, is .516 square inch. In a furnace in which 13 lbs. of coal are burnt on a square foot of grate per hour, the area to every foot of grate would be  $.516 \times 13 = 6.708$  square inches; and the proportion to each foot of grate, if the rate of combustion be higher or lower than 13 lbs., may be found in the same way.

"This area having been obtained, on the supposition that no more air is admitted than the quantity chemically required, and that the combustion is complete and perfect in the furnace, it is evident that this area must be much increased in practice, where we know these conditions are not fulfilled, but that a large surplus quantity of air is always admitted. A limit is thus found for the area over the bridge, or the area of the flue immediately behind the furnace, below which it must not be decreased, or the due quantity could not pass off, and consequently the due quantity of air could not enter, and the combustion would be proportionally imperfect. It will be found advantageous in practice to make the area two square inches instead of .516 of a square inch. The imperfection of the combustion in any furnace, when it is less than 1.5 square inch, will be rendered very apparent by the quantity of carbon which will rise unconsumed along with the hydrogen gas, and show itself in a dense black smoke on issuing from the chimney. This would give twenty-six square inches of area over the bridge to every square foot of grate, in a furnace in which the rate of combustion is 13 lbs. of coal on each square foot per hour, and so in proportion for any other rate. Taking this area as the proportion for the products of combustion, immediately on their leaving the furnace, it may be gradually reduced, as it approaches the chimney, on account of the reduction in the temperature, and consequently in the bulk of the gases.

Care must, however, be taken that the flues are nowhere so contracted, nor so constructed as to cause, by awkward bends, or in any other way, any obstruction to the draft, otherwise similar bad consequences will ensue.

"An idea is very prevalent that it is advantageous to make the flame or hot gases (as they may be termed, because we may look upon flame merely as a stream of gases heated to incandescence) impinge upon, or strike forcibly the plates of a boiler, at any bend or change of direction in the flue. The turn in the flue is, therefore, made with a square end, and with square corners; but it is difficult to see on what rational grounds the idea of advantage can be upheld. The gases, if they are already in contact with the plate, cannot be brought closer to it, and any such violent action is not necessary to alter the arrangement of the particles of the gases and bring the hotter particles to the outside; while there is a great risk of an eddy being formed and of the gases being thrown back and returned upon themselves, when they strike the flat opposing surface; thus impeding the draft and injuring the performance of the boiler. That circulation will take place to a very great extent, among the particles of heated gases, flowing in a stream even in a straight flue, will be apparent from those particles next the surface being retarded, by the friction against the sides and by their tendency to sink into a lower position in the stream, from their having been cooled down and become more dense. An easy curve is sufficient to cause great change in the arrangement of the particles, as those which are towards the outside of the bend, have a much longer course to travel, and are thus retarded in comparison with the others.—From these causes the hotter particles in the centre of the flowing mass, are in their turn brought to the outer surface and made to give out their heat. The worm of a still is never found returning upon itself with square turns, as if the vapor inside would be more rapidly cooled by its impinging on the opposite surface; yet the best form of worm is a subject which has engaged the attention of many able men, and therefore may well be taken by engineers as a guide in the management of a similar process, though carried on at a much higher temperature.

"Another very prevalent practice and which also would seem to be open to serious objections, is, that the flues are frequently made of much greater area in one part than in another. This arises from a desire to obtain a larger amount of heating surface, than is consistent with the proper area of the flue, or with the amount of the heated gases which are passing through it. The flue is thus made shorter in its course than it ought to be in proportion to its sectional area. This is even sometimes done, by placing a plate of iron partly across the flue, near the bottom of the chimney, thus suddenly contracting the passage for the gases. The effect of this is evidently to cause a very slow and languid current; in the larger part of the flue, and the consequence is, that a deposition of soot rapidly takes place there. In many marine and land boilers, having one internal flue in them, of too large a size, this will be found to be the case, soot being soon deposited, till the flue is so filled up that the area left is only such as is due to the quantity of heated gases passing through it; the value of those parts of the sides of the flue which are covered with soot is thus lost.

\* \* \* \* \*

"When the gases have reached the foot of the chimney, in a well-proportioned boiler, they will be found to be reduced to a temperature of about 500° Fahrenheit, or below it; their bulk will, in consequence, be reduced by about one-third below their bulk on their first leaving the furnace. The reduction in the area of the flue, ought not to be in the same proportion, because their velocity is no longer so great. The reduction ought to be made gradually, as has been stated before, and not by a sudden contraction at the foot of the chimney; as the effect of this is to cause a slowness of draft in the latter part of the flue and consequently a deposition of soot; and then the surface, so covered, which had been reckoned upon as effective heating surface, is lost. The area of a chimney to allow the products of the combustion of each pound of coal consumed in an hour, to pass off, should be not less than three-fourths of two square inches, this latter being the area given for the flue, immediately behind the fire-place—that is, one and a half square inch; and for a boiler burning 13 lbs. of coal per hour on each superficial foot of its grate, the area should be three-fourths of twenty-six square inches, or nineteen and a half square inches.

"Theoretical research not having as yet given us any valuable assistance, in determining the proper height of a chimney, we must again refer to practice as our guide. A good draft may be obtained with a very low chimney, but at a great expenditure of fuel, from the necessity that exists in such a case for allowing the gases to pass off at a much higher temperature than would otherwise be necessary. For a chimney built of brickwork, the height ought not to be less than twenty yards, and may be increased to thirty yards or forty yards, with advantage in the economy of fuel. When chimneys are carried to a still greater height, it is generally for the purpose of carrying off the smoke, or any deleterious gases, from the immediate neighborhood or to create a good draft with gases at a lower temperature than those from a steam-boiler furnace. On board steam vessels chimneys are limited in their height by the size of the ship, on account of the influence the chimney has on the stability and appearance. It will generally be found advantageous to make the chimney as high as these circumstances will permit.

#### DISASTERS ON THE RIVERS.

The Pittsburgh Dispatch gives the following account of the disasters and total losses of steam boats, flat or coal boats, ferry boats, store boats and barges, from the 28th June, 1854, to the 12th July 1855, on our Western and Southern waters. Also sail and steam vessels on sea and lakes; and loss of life on all.

Total loss of steamboats by sinking.....	54
Do. do. do. by explosion of boilers and steampipes, cylinders, etc.....	12
Sunk and raised again.....	62
By burning.....	18
Steam and sail sessel lost.....	81
Missing vessels.....	51
Lives lost on vessels, sea and lakes.....	548
Barges sunk.....	32
Coal boats lost.....	167
Ferry boats lost.....	4
Storeboats sunk.....	2
Lives lost on steamboats and coal boats.....	344
Number of persons wounded and crippled.....	53
Total loss of on all.....	382
Taking the missing vessels into account, the loss of life may be safely estimated at, (if not over that number).....	3,000
Total loss—Steamboats.....	84
Do. Sea and lake boats.....	34
Do. Coal boats.....	167
Do. Ferry boats.....	4



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SBS.	OFF'D.	ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872	7 1872					
Baltimore and Ohio.....	Transferable. Taxed.....	6 1885		70%	100	44	44
Do do.....	Coupons. Not Taxed.....	6 1875					
Do do.....	" ".....	6 1880					
Do do.....	" ".....	7 1860					
Do do.....	" ".....	6 1885					
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866		98	50	45	
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866					
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870		97	99	08%	100
Chicago and Mississippi.....	1st " ".....	7 1862					
Do do.....	2d " ".....	7 1874	65				
Chicago and Aurora.....	1st " ".....	7 1866					
Cincinnati, Newcastle and Mich.	Real Estate.....	7 1859					
Cleveland, Columbus, and Cin'ti	1st mortgage, convertible.....	7 1859		100			
Do do.....	No mortgage, convertible.....	7 1855					
Cleveland and Mahoning.....	1st mortgage.....	7 1861			100		
Cleveland, Paines, & Ashtabula.	2d " not convertible.....	7 1861					
Do do.....	1st " convertible.....	7 1860			75	76	
Cleveland and Pittsburgh.....	1st " 2d sec. convertible.....	7 1873					
Cleveland and Toledo.....	1st mort. not conv. '73.....	7 1863		93	94	50	93 94
Cleveland, Zanesville, & Cin'ti.	1st mortgage " till 1855.....	7 1867				85	85
Cincinnati, Hamilton & Dayton.	2d mortgage " ".....	7 1860	85%	88			
Do do.....	1st mortgage, real estate, conv.....	10 5 & 10 y's	27	30			
Cincinnati, N. C. & Michigan...	2d " ".....	8 " "	44%	71		12%	14
Cincinnati Western.....	" ".....	7 " "	69%			40	45
Cincinnati, Wil. and Zanesville.	Real Estate.....	8 1859	40			12	15
Cincinnati, Ind. and Chicago.....	1st mortgage, convertible.....	7 1862	75	76			
Cincinnati and Chicago.....	2d " ".....	7 " "	60	61			
Columbus, Piqua and Indiana.....	1st mortgage, convertible.....	7 1859	80		91	100	
Do do.....	2d " " till 1862.....	7 1863	65	65	50	31	31
Columbus and Xenia.....	Income.....	10 " "	70	75	50		
Covington and Lexington.....	1st " ".....	7 1867			50	20	22
Do do.....	1st " ".....	7 1862			20	21	
Dayton and Michigan.....	1st " ".....	7 1864	26	30			
Dayton and Western.....	1st mortgage.....	7 1862	60		45	50	
Dayton, Xenia and Belpre.....	1st mort. guaranty Mich. S. R. R.	7 1862					
Eaton and Hamilton.....	1st mortgage.....	7 " "	80	81		12%	14
Erie and Kalamazoo.....	" ".....	7 " "					
Evansville and Crawfordsville...	Pledge of second section, cenvr.	10 1853-6	92%		100	105%	108
Fort Wayne and Southern.....	1st mort.....	7 " "	59%	60	50	25	27
Franklin and Warren.....	1st mortgage, not convertible.....	6 1875	88%	89	100	97%	100
Galena and Chicago Union.....	Freeland.....	7 1866	87	88			
Hillsboro and Cincinnati.....	1st mortgage, convertible.....	7 1866	63%	75	50	50	52
Illinois Central.....	2d " ".....	10 1857			80	50	50
Do do.....	1st " ".....	7 1860-1			80	50	50
Indiana Central.....	2d mortgage.....	7 " "	80	82	50	68	73
Do do.....	1st " ".....	7 1861			50		
Indianapolis and Bellefontaine..	1st " not ".....	7 1861			36		
Indianapolis and Cincinnati.....	1st " ".....	7 1867			11	15	
Indianapolis and Lafayette.....	Real Estate.....	10 " "	72	73		12%	
Jeffersonville.....	1st mortgage, convertible.....	8 1864	77	82	100		
Junction (Ohio).....	1st mortgage, not convertible.....	6 1863	86	90	50	97	100
La Crosse and Milwaukee.....	2d " " till 1855.....	7 1861					
Little Miami.....	" " unconvertible.....	7 1858	9		100		
Louisville and Nashville.....	1st mortgage, convertible.....	7 1873					
Lyons, Iowa, Central.....	1st mortgage, convertible till 1855	7 1855-6	75	50	40	43	
Mad River and Lake Erie.....	2d " ".....	7 1866	75				
Do do.....	Dividend.....	7 1860	75				
Do do.....	1st mortgage, convrt. after 1853.	6 1861			50		
Madison and Indianapolis.....	Domestic Bonds.....	50			27	30	
Marietta and Cincinnati.....	2d " ".....	50					
Do do.....	1st " ".....	50					
Hillsboro and Cincinnati.....	1st mortgage, convertible.....	6 1873			50		
Maysville and Big Sandy.....	No mortgage, convertible.....	8 1860	97		101%	102	
Maysville and Lexington.....	" " not ".....	8 1855-6					
Memphis and Charleston.....	" " ".....	8 1857-8					
Michigan Central.....	1st " ".....	7 1860-90		100		105	106
Do do.....	1st mortgage 6s. 1884.....	8 1862					
Michigan Southern.....	" " ".....	8 " "					
Milwaukee and Mississippi.....	1st mortgage on 1st section.....	10 1858-62			50	15	
Mobile and Ohio.....	1st " on other sec. con.....	8 1864-75					
Nashville and Chattanooga.....	1st " convertible.....	6 1873					
New Albany and Salem.....	1st mortgage, not convertible.....	7 1867	104	105		103%	104
New Castle and Richmond.....	2d " convertible.....	7 1871	84	88	100	53%	54
New York Central.....	1st " ".....	7 1883	95	95			
New York and Erie.....	1st mortgage, convertible.....	8 1873					
Do do.....	1st " not convertible.....	7 1861	79				
Do do.....	1st " Goshen line.....	8 1868	90	91		105	106
Northern Cross, Ill.....	Construction Bonds.....	7 " "					
Northern Indiana.....	1st mortgage, convertible.....	7 1861	61			40	46
Do do.....	2d " ".....	7 1880	52	53		12%	18
Do do.....	1st " ".....	7 1867			50	14	18
Ohio Central.....	1st " ".....	7 1865					
Ohio and Mississippi.....	Income. No mortgage, convrt.	7 1872			50		
Ohio and Indiana.....	1st mortgage, convertible.....	7 1866	101%	105		109%	110
Ohio and Pennsylvania.....	" " ".....	7 1873					
Do do.....	1st mortgage, convrt. till 1860.....	6 1880			50	43%	40
Pacific, Mo.....	1st " ".....	7 " "			25	30	31
Panama.....	1st " ".....	7 1872			50		
Parkersburg (or N. western Va.)	1st " ".....	7 1860					
Pennsylvania.....	1st " ".....	10 1853-7					
Peru and Indianapolis.....	1st " ".....	7 1861	50	51	50	50	51
Rock River Valley Union.....	1st " ".....	7 1865					
Sandusky and Mansfield.....	1st " ".....	7 1862-72	93%	94			
Do do.....	2d " ".....	8 1865	89	90			
Scioto and Hocking Valley.....	1st " ".....	6 1866					
Southwestern, Tennessee.....	1st " ".....	7 1863	87	88	50		
Springfield and Columbus.....	2d " ".....	7 " "					
Steubenville and Indiana.....	1st " ".....	7 " "					
Terre Haute and Alton.....	1st " ".....	7 " "					
Do do.....	2d " ".....	7 " "					
Terre Haute and Richmond.....	1st " ".....	7 " "					
Toledo, Norwalk and Cleveland.	2d " ".....	7 " "					
Do do.....	Guar. of C.....	1883					

## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D.
U. S. Loan.....	6	1856	105	105
Do.....	6	1862	112%	113
Do.....	6	1867	119%	120
Do.....	6	1868	119%	120
Do (Int. ceased July 1).....	5	1833		102
Do Coupons.....	6	1892		118
Do ".....	6	1897		118
Do ".....	6	1833		101
STATE.				
Alabama.....	5			
California.....	7	1870	87	88
Arkansas.....	6			96
Georgia.....	6		98	99
Do.....	7			
Illinois Canal Bonds.....	1860			
Do do registered.....	1860			
Do do.....	1847			
Do do registered.....	1847			
Do do Internal Impt.....	6	1847	103	103%
Do Interest do.....	5		64	64
Indiana.....	5		80%	87
Do.....	2%		53	54
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	100%	
Do.....	5			
Louisiana.....	6		95%	96
Michigan.....	6		97	98
Missouri.....	6		95%	96
New York.....	6	1860-61	111	114
North Carolina.....	6		97%	100
Ohio.....	6	1856	100	
Do.....	6	1860	105%	106
Do.....	6	1870	110	111
Do.....	6	1875	112	113
Do.....	5	1865		
Pennsylvania.....	6			
Do.....	5	1870	88	89
Tennessee, long loan.....	6	1890	96%	92
Do Coupons.....	5		81	83
Virginia Coupons.....	6	1826	98	100
CITY SECURITIES.				
Albany.....	6	1871-81		99%
Allegheny.....	6	1875-7		80
Baltimore.....	6	1870-90	99%	100%
Do.....	5	1865		
Boston Bonds.....	4%	1860		
Chicago.....	6	1873-7	92%	95
Cleveland.....	6	1879	103%	105
Cincinnati.....	6	1860-92	96	96%
Do.....	6	1897		
Do.....	5	1884		
Do W. W.....	6	1865		
Covington.....	6	1857	80	80
Jeffersonville.....	6	1890	70	
Louisville.....	6	1880	86%	87
Memphis.....	6	1862		72%
New York.....	7	1857	100%	
Do.....	5	1858-00	96	99
Do.....	5	1870-5	97	100
Do.....	5	1890		
Philadelphia.....	6	1876-90	94%	95
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1883		
Racine.....	7	1873	61%	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1873	81%	83
COUNTY BONDS.				
Bourbon, Ky.....	6	1881	77%	80
Darke, O.....	7			
Fairfield, O.....	7	1862		
Fayette, O.....	6	1881-3	75	75
Hancock Co.....	7		70	75
Mason, Ky.....	6	1881	73	76
McCraken Co. Ky., endorsed by				
New Orleans and Ohio R. R.	6	1866	80	85
St. Louis.....	7	1871		
Do.....	7	1871		
BANKS.				
OHIO.				
American Exchange Bank, N. Y.....			105%	
Ohio Life Insurance and Trust Co.....			99%	103
Washington Insurance Co.....			84	85
City Insurance.....			70	
Cincinnati Insurance Co.....			84	
National Insurance.....			75	80
KENTUCKY.				
Bank of Kentucky and Branches.....			100	
Northern, and Branches.....				
Southern, and Branches.....				
Bank of Louisville.....			93	
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....			105	108
Commercial Bank of Kentucky.....				
INDIANA.				
State Bank and Branches.....				
TENNESSEE.				
State Bank and Branches.....				
Union.....				
Planters.....				
LAND WARRANTS.				
160 acre warrants, per acre.....			\$110	112%
80 acre warrants.....				
40 acre warrants.....				



## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.	prem.
On New York.....	Sight.....	1/4	1/4	prem.
Boston.....	Sight.....	1/4	1/4	prem.
Philadelphia.....	Sight.....	1/4	1/4	prem.
Baltimore.....	Sight.....	1/4	1/4	prem.
New Orleans.....	Sight.....	1/2	dis. to	par.
England.....		110	110 1/2	

## SPECIE.

	GOLD.	
California clean, P oz.....	\$17 60 @	\$17 65
Spanish Doubloons.....	16 75 @	16 75
Patriot Doubloons.....	15 75 @	15 80
Sovereigns*.....	4 86 @	4 88
Guineas.....	5 00 @	5 00
American, new.....	1 00 @	1 00
American, old.....	1 06 @	1 06
Portuguese.....	1 00 @	1 00

## SILVER.

American Dollars.....	1 03 1/2 @	1 04
American Halves.....	1 03 1/2 @	1 04 1/2
Spanish Dollars.....	1 14 @	1 14
Spanish Quarters.....	1 00 @	1 01
Mexican Dollars.....	1 05 1/2 @	1 05 1/2
Five Franc pieces.....	97 @	97 1/2

\* The standard English value attributed to the Sovereign is \$4.44, in London. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending August 15, 1855.			
\$5,000 City of Cov. 6 per cent. Bonds, due Sept. 1, 1858.....	75		
\$5,000 City of Cov. 6 per cent. Bonds, due Sept. 1, 1857.....	80		
\$2,000 Ohio & Miss. R. R. Co., 2d Mort. 7 per cent. Bonds.....	52 1/2		
\$9,000 Cin. & Wil. & Zanes. R. R. Co., 2d Mort. 7 per cent. Bonds.....	67 1/2		
\$2,000 Cin. West'n. R. R. Co., 8 per cent. Real Estate Bonds.....	40 1/2		
\$1,400 Indianapolis & Cin. R. R. Co., 7 per cent. Dividend Bonds.....	69 1/2		
\$3,000 Cov'g. & Lex. R. R. Co., 7 per cent. 2d Mort. Bonds.....	65 (& int.)		
\$500 Columbus, Piqua & Indiana R. R. Co., 7 per cent. Income Bonds.....	38 1/2		
\$1,000 Little Miami R. R. Co., 6 per cent. Bonds, due in 1853.....	86 (& int.)		
14 Shares Cin., Ham. & Dayton Railroad Company.....	85		
5 " " Ind'napolis & Bellefontaine 50			
120 " " Cin. & Chicago.....	11 1/2 (& int.)		
58 " " Cin. & Chicago.....	12		
66 " " Indianapolis & Cin. R. R. 68			
149 " " Cin. Har. & Indianapolis R. Company.....	8		
30 " " Central Ohio R. R. Co., 40			
100 " " Peru & Indianapolis R. R. 30			
7 " " Cin., Wil. & Zanes. R. R. 40 (& int.)			
60 " " Little Miami R. R. Co., 97			
100 " " Covington and Lexington Railroad Company.....	31 (& int.)		
24 " " New Albany & Salem.....	13		
100 " " Ohio & Miss. Railroad Co., 12 (& int.)			
40 " " " " " " " " 12 1/2			
100 " " Cin., Har. & Indianapolis, 8 1/2			
40 " " Little Miami R. R. Co., 95 1/2			
100 " " Cin. & Chicago Railroad Company.....	12 (& int.)		

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAITHE, STOCK BROKER, LON.

July 27th, 1855.

Belvidere, Del. guar. 1st mort., conv.....	@	88 1/2
Chicago and Mississippi, 1st Mort., 1862.....		
Erie, 3d Mortgage, 1863.....	87	88
" Sinking Fund.....	85	86
Grand Trunk (Canada) Debenture.....	95	96
Great Western " conv.....	112	114
" " non-conv.....	106	108
Illinois Central, 1st Mort., 7 1/2.....	79 1/2	80 1/2
" " with option 70 per cent.....		
" shares till Jan, 1858.....	84 1/2	85 1/2
Little Miami 1st Mort. not conv. 6's.....		
Marietta and Cincinnati, 1st Mort.....	77	82
Michigan Central, conv. 8's.....	97 1/2	98 1/2
N. York Central. No Mort. Not conv.....	82	84
" " conv.....	95 1/2	96 1/2
Ohio and Mississippi, 1st Mort.....	82	85
Ohio and Pennsylvania, Income 1872.....	84 1/2	85 1/2
Panama. No mort. conv. 1866.....	94 1/2	95 1/2
Pennsylvania, 1st Mort., conv.....	90 1/2	91 1/2
" " Sterling, 2d Mort.....	92 1/2	93 1/2
Staubenville and Ind., 2d Mort.....	89	90

## Monetary and Commercial.

During the past week the demand for money has been only moderate. Capital, as at our last dates, has continued abundant. The natural accumulation of the country joined to the fact that but few new investments have been made for a long period, have tended to bring about this result. We quote rates of discount for prime paper outside of the regular discount houses at 8 to 12 per cent.

Our Currency at the present moment presents the same anomalous feature that it did a year ago. Ohio bills are scarce, hence we use as a circulating medium the notes of banks in every State of the Union. There is much Louisiana Stock money at present in circulation, and as New Orleans exchange is now at a discount, it is probable that it will remain here until southern exchange advances in consequence of fall purchases. We regard the abundance of foreign notes as an unfavorable feature in the present aspect of our currency. The law with regard to their circulation, is still the same, but in reality is only a dead letter, till revived by the cupidity of money dealers.

Eastern exchange remains as at former quotations 1/2 buying, 1/2 per cent. selling, demand moderate, supply ample.

The flour market during the week has been pretty firm, the demand equalling the supply at prices ranging from \$7.00, \$6.80, \$6.95, \$6.85, to \$7.00 for good brands and \$7.10 per extra. The demand for wheat equals the supply at \$1.25 per bushel. Corn is in good supply, prices falling to 75 and 70 cts per bushel. Oats are dull at 25@57 cts.

The stock market does not exhibit much animation. Sales are light, especially of the speculative kinds. Prices however are generally sustained and stocks of reliable companies find purchasers at current rates.

Advices from the east note money freely offered at 6 to 7 per cent., and the amount of paper offered outside the banks is small.

In domestic dry goods, the demand is steadily increasing. There is a good business doing in fancy styles of woollen and cotton goods. Plain styles are still heavy. Jobbers have not yet begun to receive orders from the west.

With regard to stocks, the *Economist* says:

"The stock market is buoyant, and the best trunk railroads continue to rise in value—both bonds and stocks. The drawback upon enhanced buoyancy seems to be the fear that the completion of harvest may cause a demand for money, which may induce the withdrawal of funds for the use of crops, now employed upon stocks. This is not likely to be the case, since the supply of capital in the country is large, and the movement of crops will only increase in abundance. The funds usually loaned upon stocks are the balances from the interior, or the excess of crop proceeds over the amounts due here for goods. The purchases of goods of late have been small, and the crops in quantity and value to come forward are large, and will add to the value of floating means.

The United States Secretary has, contrary to expectation, offered to continue the redemptions of the federal stocks. The balance of the '56 loan, about \$2,000,000, and \$1,310,000 of the other issues, making \$3,310,000, are bid for."

Foreign exchange is dull and sales are lower. Mercantile bills are sold at 9 per cent., bankers' checks at 9 1/2. Shipments of specie have also declined. The shipments of specie from the ports of New-York and Boston, for the seven months, ending July 31 have been, New-York..... \$19,958,288.  
Boston..... 9,750,551.

Total for seven months, \$29,708,839.

Sales at the New York Stock Board, August 13:

\$1,000 Kentucky 6's.....	102
7,000 Virginia 6's.....	93
3,000 Ohio 6's, '75.....	112
1,000 Harlem 2d mort.....	80
5,000 Erie Bonds, '75.....	91 1/2
5,000 Ill. Cent. Bonds.....	88 1/2
1,000 N. Y. Cent. 6's.....	92
26,000 New York Cent., 7's.....	104
1,000 N. Y. Cent. R. 1st mort.....	90 1/2
300 Shares N. Y. Cent.....	103 1/2
300 " Erie.....	53
125 " Reading.....	98 1/2
70 " Ill. Cent.....	97 1/2
70 " Hudson River.....	41
50 " Mich. So. and No. Indiana.....	105
10 " do do Const.....	98 1/2
71 " Panama.....	109 1/2
25 " Little Miami.....	96
500 " Cleveland & Pittsburgh.....	75 1/2
500 " Cleveland & Toledo.....	93
225 " Chicago and Rock Island.....	98 1/2
105 " Mich. Central R. R.....	101 1/2
25 " Wis. Lake Shore R. R.....	86
40 " Harlem R. R.....	29 1/2

## COMMERCE OF BOSTON.

Revenue collected, at this port, for the month ending June 30, 1855..... \$505,961 03  
Collected for the month of June, 1854..... 663,194 07

Decrease..... \$157,233 04  
Collected for the fiscal year ending June 30, 1854..... \$8,342,289 06  
Collected for the fiscal year ending June 30, 1855..... 5,616,568 78

Decrease..... \$275,720 28  
Collected from Jan. 1 to June 30, 1854..... \$4,344,753 39  
Collected from Jan. 1 to June 30, 1855..... 3,706,848 85

Decrease..... \$637,904 54  
Foreign arrivals from January 1 to June 30, 1854..... 1,213  
Foreign arrivals from January 1 to June 30, 1855..... 1,285

Increase..... 72

It will be seen that the foreign arrivals from January 1 to June 30 1855 exceeded the arrivals for the same period in 1854, 72; while the revenue for the same time is \$637,904 54 less than it was in 1854,—a partial development of the Reciprocity Treaty.

Specie in the vault of the Assistant Treasurer for this port, June 30, 1855, \$3,238,112 23.

## Earnings.

CHICAGO AND ROCK ISLAND RAILROAD.—Earnings of the Chicago and Rock Island Railroad for the month of July 1855 and the corresponding month in 1854.

	1855.	1854.
Passengers.....	\$54,833 86	\$46,636 32
Freight.....	40,057 22	33,653 00
Mails.....	1,800 00	
	\$96,691 68	\$80,289 32

Increase..... \$16,402 36  
The decrease in Freight receipts in 1855 is owing to the fact that prices for grain in St. Louis were higher than at Chicago; consequently the products of the country sought the Southern market via the Illinois and Mississippi rivers.

MICHIGAN CENTRAL RAILROAD.—Earnings of the Michigan Central Railroad for the month of July 1855 and the corresponding month in 1854.

	1855.	1854.
Passengers.....	\$110,394 20	\$82,531 07
Freight.....	64,185 95	37,319 87
Miscellaneous.....	8,652 16	3,531 25
	\$183,232 31	\$123,382 19

Increase..... \$60,850 12  
Per cent..... 49  
Same number of miles in operation both years.

PACIFIC RAILROAD.—Earnings of the Pacific Railroad of Missouri, for the month of July, 1855, and the corresponding month in 1854. Only partially open.

	1855.	1854.
Passengers.....	\$9,194 35	\$5,505 25
Freight.....	4,059 90	1,630 75
Mails.....	183 33	

\$13,437 58 \$7,136 00  
Miles open—In 1855, 55 miles; in 1854, 37 miles.  
On the 6th of August opened 26 miles more, (81 from St. Louis), and in October will open 45 miles more to Jefferson City.

## Railroad Record

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# SLAVE LABOR FOR SOUTHERN RAILROADS AND CANALS.

BY G. W. MORSE, STATE ENGINEER OF LA.

I trust you will excuse me in dwelling so long upon this portion of my report, in consideration of what I conceive to be its importance.

There has been much discussion in reference to the propriety of employing white instead of slave labor, and also as to the adoption of the contract system in place of the one now in use. The State engineer, whose only business is to conduct the internal improvements of the State, should certainly be able to throw some light upon these questions. A new system of book-keeping has this year been adopted, which enables us to show in detail the expenditures for different objects since I took charge of this department, and would also aid us in forming correct opinions in reference to those subjects. Our provision bill for the year 1853 amounted to \$5,048 41, or, per head for each negro, including provisions for superintendent of every twenty-five hands, \$47 62. Our clothing bill was \$2,288 15, or \$28 51 per hand. In the year 1854 our provision bill amounted to \$5,677 73, which includes some small bills for surveying parties. Our whole clothing bill amounted to \$1,942 58, which would make the total cost per head for negro provisions and clothing \$73 98½.

This I do not think very extravagant, when we consider that the superintendents were all furnished from the same provisions, and that many articles are required for negroes working on boats and in camp which they would not want if living on plantations where an abundance of vegetables could be obtained. We purchase everything, while on plantations corn and more than half the food necessary to support life are raised. As far as my experience goes upon the question of the employment of white or slave labor, and I have employed both, the former on the Barratria and Lafourche canal, and on the works at the mouth of the bayou Plaquemine, the result stands as follows: This department has employed for the last two years an average of one hundred and three negroes, at an average cost for provisions and clothing for the two years of \$7,478 00. Nine of them have died in the meantime, one from old age, two from chronic diseases previously acquired, and the other six able men, so that although nine have died in the two years, the State has lost but four per cent. of its capital each year of that time. The account should stand thus, estimating the negroes at \$1,200 each:

Value of 103 negroes, at \$1,200 each \$123,600.

Interest at six per cent. on stock for one year	\$7,416 00
Loss on stock for one year four per cent.	4,944 00
Provisions and clothing	7,478 00
<b>Total</b>	<b>19,838 00</b>
Total cost for each slave per year	192 60
Cost per month	16 05
One year's labor of 103 white men, at \$35 per month, including provisions	43,260 00
Making a difference in favor of slave labor per year of	23,422 00

White labor at Lockport two years ago cost the State one dollar per day and board, and the men whom we hired boarded at that place cost us \$15 per month, making the cost equal to \$1 57 2-3 per day, or \$41 per month. At Plaquemine this year Captain Lawes, who was the contractor for public works, paid his laborers from \$1 50 to \$1 62½ per day,

they boarding themselves. Thirty-five dollars, then, per month for white labor cannot be too high an estimate, including cost of board. This calculation is based upon positive facts upon record in this office, and therefore must be correct. There is however one item not taken into the account, and that is the fact that negroes in this climate will, for the year round, perform much more labor than an equal number of white men—I think the difference is about two to three—or that twenty negroes will perform as much hard labor as thirty white men, which would increase the difference in favor of slave labor from \$23,422 to \$37,475 per year. This last difference is not alone owing to the fact that the negroes can work on during the sickly season, while many of the white laborers fail, but to the fact that they are better able generally, and, in my opinion, do actually perform one-third more work. The cost of superintending white and slave labor must necessarily be about the same. Another disadvantage attending the employment of white laborers is the fact that they are more difficult to control than the negro, and when they know you are most dependent on them they will either demand higher wages or leave you. The State force now consists of ninety-seven men, eight having died during the year, four of cholera, two drowned, and two of old chronic diseases, and some ten or fifteen of those remaining are now too old for active and hard service. We should have four hundred more, a part of whom should be placed on our boats to learn how to manage them before the old set are gone. Twenty-five, composed in part of the present force and part of the new, to be placed upon a new, large, and strong boat, made expressly to open the Atchafalaya, and the remainder to be employed clearing off the banks of the most important streams, so that when the snags shall have been removed they will continue clear of them.

**RAILROADS IN IOWA.**—We learn from the *Gate City* that Mr. Henry Farnam has taken the contract for the Rock Island and Muscatine Railroad, to be completed to Muscatine by the first of January next, and to Columbus City by July succeeding.

At a late meeting of the Keokuk, Mt. Pleasant and Muscatine Railroad Company, Laurin Dewey, Reuben Allen, John B. Lash, Robert Wilson, Charles N. McDowell, and John H. Randolph, of Mt. Pleasant; D. W. Kilbourne and J. M. Hiatt, of Keokuk; Frank Ballinger, of Lee County, and Francis Springer, of Columbus City, and J. A. Parvin, of Muscatine. Colonel Laurin Dewey was chosen President, and Charles Parsons, of Keokuk, Treasurer.

**RAILROAD TO CAPE MAY.**—At a meeting of the Board of Directors of the Raritan and Delaware Bay Railroad, on the 24th, at Camden, Francis B. Chetwood was elected President; Bennington F. Randolph, Treasurer; Wm. A. Torrey, Secretary; and Israel Pemberton, Chief Engineer. It was unanimously resolved to commence the survey and location of the road immediately, beginning at Cape May. The engineer corps will probably be in the field on the 7th of August next. A second corps will be put on the line at Raritan Bay about the 21st of August. The actual construction of the road will begin as soon as the right of way is obtained.

# STATEMENT OF THE METROPOLITAN FIRE INSURANCE COMPANY, of the city of New York, filed in the office of the Auditor of the State of Ohio, in conformity with an act of the Ohio Legislature, passed 1st of May, 1854, to regulate the agencies of Insurance Companies not incorporated by the State of Ohio.

- First. The name of the company is "The Metropolitan Fire Insurance Company."
- Second. The amount of capital subscribed is, \$300,000 00
- Third. The whole amount is paid up in cash.
- Fourth. The assets of the Company are as follows:
- |   |                                     |
|---|-------------------------------------|
| 1. Cash on hand,                          | \$ 19,420 98                        |
| In hands of agents,                       |                                     |
| say,                                      | 500 00                              |
| 2. Real Estate.                           | None.                               |
| 3. Bonds held by the Company.             | None but those secured by mortgage. |
| 4. Debts secured by mortgage,             | 286,847 92                          |
| 5. Debts secured by pledge of Bank Stock, | 3,400 00                            |
| 6. Debts for Premiums,                    | 3,261 72                            |
| 7. Other securities.                      | None.                               |
- Fifth. No debts are due to Banks or to any other creditors of the Company, except a few small bills on account of expenses, say \$600.
- Sixth. No loss is adjusted and due.
- Seventh. No loss is adjusted and not due.
- Eighth. Losses unadjusted—one claim of \$1250.
- Ninth. No loss in suspense, except above.
- Tenth. No other claims against the Company.
- Eleventh. The greatest amount insured by this Company, in any one risk, is \$10,000, except in one instance, where risks to the amount of \$15,000 are taken.
- Twelfth. No limit is fixed upon the amount insured in any one city, town or village.
- Thirteenth. No limit is fixed upon the amount insured in one block. In both these cases the amount is left to be determined by the circumstances, under stringent rules as to the quality and relative situation of the risks assumed.
- Fourteenth. The Charter of this Company is formed under the general Insurance Law of the State of New York and a copy thereof is on file in the office of the Auditor of State of the State of Ohio, together with the act of the Legislature of New York amending said Charter, passed January 31, 1853.

STATE OF NEW YORK, }  
City and County of New York, } ss.

On the twenty-fifth day of July, 1855, before me personally appeared James L. Graham, to me known to be the President, and Edward A. Stansbury, to me known to be the Secretary of the Metropolitan Fire Insurance Company, in the city of New York, who being by me duly sworn, did depose and say, each for himself, that the foregoing statement of the affairs of said Company, as the same were on the first day of July instant is true, and that the copy of the Charter and accompanying proceedings on the organization of said Company, appended to the statement filed by this Company in the Auditor's office of the State of Ohio, in March last, is a true copy thereof, and that said Charter and proceedings are in conformity to the laws of the State of New York, and that said Charter remains in full force without alteration.

JAMES LORIMER GRAHAM, PRESIDENT.  
EDWARD A. STANSBURY, SECRETARY.  
Sworn and subscribed before me, this twenty-fifth day of July, A.D., 1855.

[SEAL.] MOSES B. MACLAY,  
A Commissioner of Deeds for the State of Ohio.

# CERTIFICATE (ORIGINAL) OF AUTHORITY.

To expire the 31st day of January, 1856.  
STATE OF OHIO,  
Auditor of State's Office,  
Columbus, July 31st, 1855.

WHEREAS, The METROPOLITAN FIRE INSURANCE COMPANY, located at New York City in the State of New York has filed in this office a sworn statement of its condition as required by the first section of the "Act to regulate the agencies of Insurance Companies not incorporated by the state of Ohio", passed May 1, 1854:

AND WHEREAS, said Company has furnished the undersigned satisfactory evidence that it is possessed of at least one hundred thousand dollars of actual capital invested in stocks of at least par value or in bonds or mortgages of unincumbered real estate worth double the amount for which the same is mortgaged:

AND WHEREAS, said company has filed in this office a written instrument under its corporate seal, signed by the President and Secretary thereof, nominating and appointing LEMUEL A. OSTROM of Cincinnati its agent for the transaction of the business of *Fire Insurance*, and fully and unreservedly authorizing him to acknowledge service of process for and on behalf of said Company consenting that service of process upon him, the said agent, shall be taken and held to be as valid as if served upon the Company according to the laws of this State or of any other State, and waiving all claim of error by reason of such service.

NOW WHEREFORE, in pursuance of the first section of the "Act to regulate the Agencies of Insurance Companies not incorporated by the State of Ohio," passed May 1, 1854, I, WILLIAM D. MORGAN, Auditor of said State, do hereby certify that the said LEMUEL A. OSTROM is authorized as an Agent for the said Company, to transact the business of *Fire Insurance* in this State,



until the thirty-first day of January, in the year one thousand eight hundred and fifty-six, so far as he may be legally empowered so to do by his letter of appointment and the instructions which may be given to him by the said Company.

[SEAL.] IN WITNESS WHEREOF, I have hereunto subscribed my name, and caused the seal of my office to be affixed this 31st day of July, in the year of our Lord one thousand eight hundred and fifty-five.

aug16 W. D. MORGAN, Auditor.

### Insurance Agency.

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

DWELLINGS, STORES, WAREHOUSES,  
and their contents,

STEAMBOATS, BARGES,  
and their Cargos,

Manufacturing Establishments,

Railroad Depots and Station Houses,

at current rates. L. A. OSTROM,  
Aug. 16. No. 6 West Third Street, Cincinnati.

## SCHENECTADY Locomotive Works,

SCHENECTADY, N. Y.

THESE WORKS HAVING BEEN ENLARGED and improved, and having received extensive additions to their tools and machinery, are prepared to receive and execute orders for

LOCOMOTIVE ENGINES,  
AND TENDERS, AND  
RAILROAD MACHINERY

generally, with the utmost promptness and despatch, and in the best style.

The above works being located on the New York Central Railroad, near the center of the state, possess superior facilities for forwarding their work to any part of the country, without delay.

JOHN ELLIS, Agent.

WALTER McQUEEN, Sup't. Aug 16. ly.

### Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

### RAILROAD IRON,

1,000 TONS best quality Welch Rails, "Erie" Pattern, 59 lbs. per yard, to arrive, due here in fifteen days. Apply to  
VOSE, LIVINGSTON & CO.,  
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RAILROAD BONDS AND CERTIFICATES OF STOCK  
Beautifully executed and at moderate rates.

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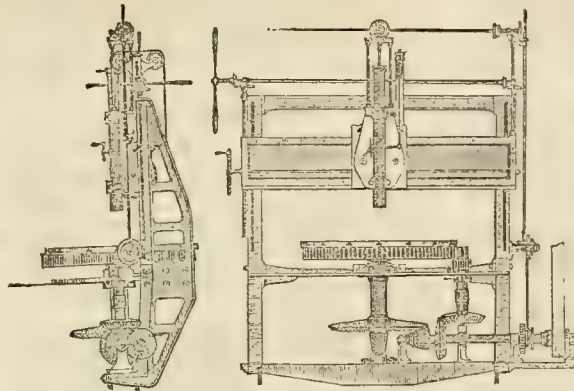
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Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

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Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

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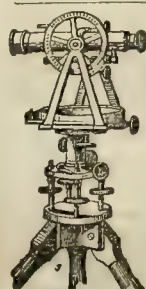
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FOR SALE.—Six Coal Burning Freight Engines, 28 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, THATCHER PERKINS, President.  
Also, for sale, two Twenty Horse Power Stationary Engines.  
Aug. 9. 4t

## THE SCHENCK MACHINERY DEPOT

AND

### Leather Banding Manufactory,

No. 163 GREENWICH STREET,  
NEW-YORK,

KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

### Oak-tanned Leather Belting,

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR.

Aug. 9 ly

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Manufacturer of  
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NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—

are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-1y

**IRON BOILER FLUES.****PASCAL IRON WORKS.****MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.

**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Granger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly CASH.

R. L. OWEN, Chief Engineer.

Aug. 2, 1855.

aug2 12w

**THE KENTUCKY MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

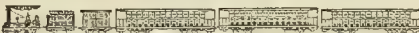
The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,

President of the Board.

July 26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

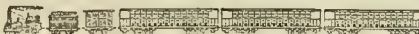
The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1855.

Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 22½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

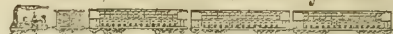
**TERRE HAUTE TO INDIANAPOLIS.**

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855.

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY JUNE 25th. 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNS.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Supt.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.

TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 6.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

M. L. MITCHELL, Agent.

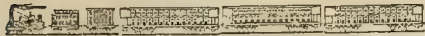
The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

feb. 8-ly

D. M. MORROW, Superintendent



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE, Through Tickets from all Parts of the West,**

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York.

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, President, JOHN H. DONE, Mast. of Transportation, Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

FREIGHT—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.

Omnibuses run from the principal hotels, and call on orders left at the Ticket Offices.

Omnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK, Ag't Cin. and St. Louis Omnibus Line, Office No. 2 Burnet House.

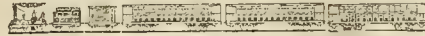
## STEREOTYPE FOUNDRY, AND AGENCY OF L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of

**STEREOTYPING,** including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES. C. F. O'DRISCOLL, 168 1-2 Vine Street, Cincinnati, O.

1855. New Arrangement, 1855  
COMMENCING MONDAY, JULY 16.



## LITTLE MIAMI RAILROAD, VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAI D WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville. Pittsburgh Passengers Dine at Crestline. Dunkirk and Buffalo Passengers Dine at Cleveland. Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route. CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

To Columbus in.....	3¾ hours.
To Cleveland in.....	8½ "
To Dunkirk in.....	14½ "
To Buffalo in.....	16 "
To Albany in.....	26 "
To New York in.....	30¾ "
To Boston in.....	35 "
To Crestline in.....	14 "
To Pittsburgh in.....	30¾ "
To Philadelphia in.....	10 "
To Wheeling in.....	26½ "
To Washington in.....	29 "
To Steubenville in.....	12 "

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

### FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

### THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4¼ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

### THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## PERU & INDIANAPOLIS R. R.



Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent  
Indianapolis, March 22, 1855.

### Covington and Lexington Railroad.

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fairmouth, Cullerville, Boyd's, Berry's, Robinson's, Garrett's, Cynthiana, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

### RATES OF FARE.

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthiana.....	2 00

### FOR THROUGH TICKETS.

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington. J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices oct.17\* CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

VIA LAWRENCEBURG,

IN connection with the Ohio and Mississippi Railroad.

Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and Lafayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street. SIDNEY RICE, Agent.

Cincinnati, June 12, 1855.

## W. G. ATKINSON,

Civil Engineer, Surveyor & Draftsman. CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared. mail-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

**OLMSTED, TENNYS & PECK,**

je.8-1f

Louisville, Ky.

**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

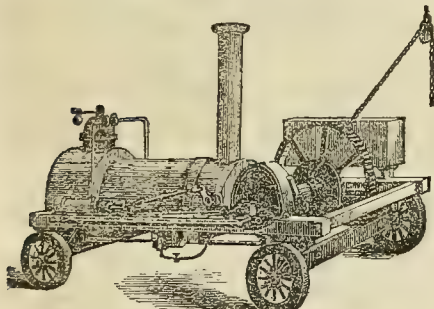
**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

jy.27.

**RICHARD NORRIS & SON.**

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM  
HOISTING & PUMPING  
ENGINES;**



FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

**A. L. ARCHAMBAULT,**

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Guages.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

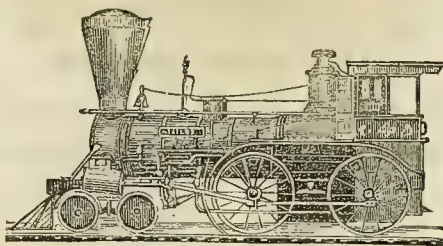
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DURAND, FULTON and TILTON.  
Manufactured by **J. M. BROWN.**

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars.**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 percent below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

**WILLIAM SHEKURNE,**

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.



HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifying Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale.

For construction and use, see R. R. Record of October 20th, 1853. mar1-tf

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

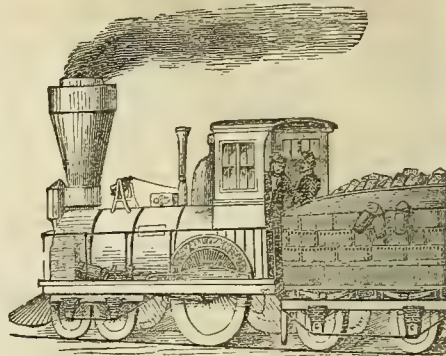
**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gun Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machine Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. jyl3.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

**MOORE & RICHARDSON.****WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

**CHARLES WASON,**

Late of the firm of T & F. Wason, Springfield, Massachusetts.

toc20

**Railroad Car Findings.****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Castings Fit to Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
**Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

**ALBERT BRIDGES,**

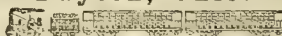
Late Davenport &amp; Bridges, Car Manufacturers,

Cambridgeport, Mass.

**ALFRED BRIDGES,**

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

toc6

**CAR MANUFACTORY,****Dayton, Ohio.**

**E. THRESHER & CO.,** having enlarged their shop are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

Dayton, Jan 24th. 1853.

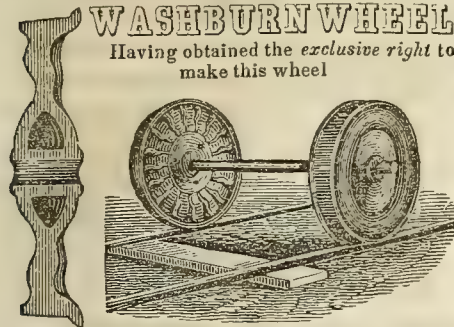
Jan.25+



**FULTON CAR WORKS,**

CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

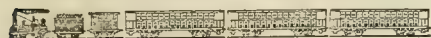
**WASHBURN WHEEL**

Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

**DAVENPORT, RUSSELL & CO.,****Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 167\*

JOSEPH DAVENPORT.

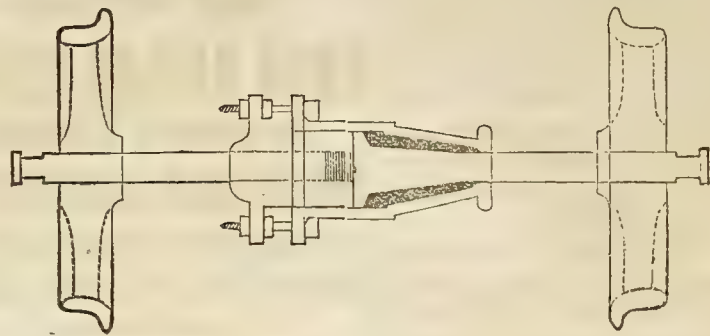
**S. C. THOMSON & CO.,**

MANUFACTURERS OF

**PATENT PAD LOCKS,**

For Railroad Switches, Merchandise Cars Stores, Cemeteries, Iron Safes, &c.,

Cor. Railroad Avenue and Market st.,  
n.12j NEWARK, N. J.

**DENNEY'S DIVIDED CAR AXLE.**

PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

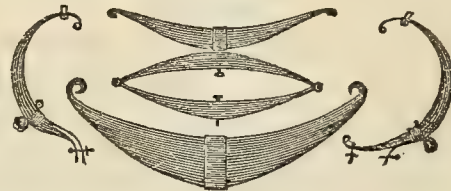
jy10†

**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**

Gap, Pa.

**MCDANIEL & HORNER,****LOCO-  
MOTIVE****AND CAR  
SPRING****MANUFACTURERS, WILMINGTON, DEL.**

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

MCDANIEL &amp; HORNER.

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

**References.**

NORRIS BROTHERS, Locomotive Builders, Philad.

A. C. GRAY, Prest. New Castle Manuf. Co.

U. WELLS, R. R. Car Manuf. Petersburg, Va.

I. R. TRIMBLE, Supt. Philad. R.R. Co.

May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga

EMERSON FOOTE, Supt. M. &amp; W. R. R. Macon, Ga.

THOMAS DOUGHERTY, Master Mach. do.

THOS. SHARP, Supt. R. F. &amp; P. R. R. Richmond, Va

**DURYEE & FORSYTH'S**

PATENT

**PLATFORM SCALES.**

WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

HEWSON & HOLMES,  
83 and 85 Walnut Street.

**THOS. M. CASH,****PHILADELPHIA RAILWAY AGENCY.**

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,

**PHILADELPHIA.****REFERENCES.**

Richard Norris &amp; Son, Locomotive Builders, Philad'a,

Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "

Charles H. Fisher, Esq., Pres't S.C.R.R. Co. Charleston, S. C

Jno. Caldwell, Esq., Pres't N. E. R. R. Co. "

Oct. 13-17.



**Parry's Anti-Friction Box,**

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

**READ THE FOLLOWING CERTIFICATES.**

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, Jr.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane. Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORNTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES

## For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES,

For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES, For Railway Wheels. Railway Axles and Springs, SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

## FRIED. KRUPP,

Essen Rhenish Prussia.

Represented solely in the United States by

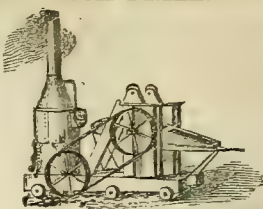
## THOMAS PROSSER & SON,

28

PLATT STREET, New York.

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



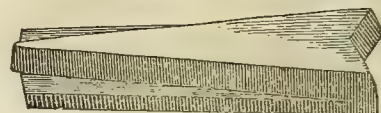
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

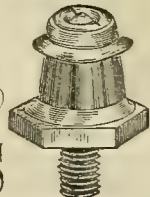
15 Walnut St., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



OIL  
CUPS



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

## General Map Establishment, No. 3 College Hall, Walnut St., Cincinnati

## E. MENDENHALL, MAP, BOOK & PRINT SELLER,

Has constantly on hand

GUIDE BOOKS of ALL KINDS, SCHOOL APPARATUS, AND  
OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers,  
Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES,  
DRAWING INSTRUMENTS, &c.

Publisher of the

Railway Map of the Western States,  
In Sheet or in Pocket Case;

The LARGE SECTIONAL and RAILWAY MAP of OHIO,  
the LARGE MAPS of CINCINNATI, and HAMILTON Co  
Ohio, and the TOWNSHIP MAPS of INDIANA and IOWA.  
MAPS OF EVERY DESCRIPTION.



On the supposition that the loan is effected, the *active* stock will not be over \$5,000,000.



With these data, we can tell nearly what the road will cost, viz :

Stock.....	\$3,000,000
First Mortgage Bonds.....	1,950,000
Second Mortgage Bonds.....	1,500,000
Third Mortgage.....	1,750,000
Contingencies.....	500,000

Eastern Division.....	\$10,700,000
Western Division.....	6,300,000

Aggregate.....\$17,000,000

If the company could command the money at this moment, the Eastern Division might be finished for a million of dollars less than is above stated. But without money, the continual sacrifices made, soon eat up a million.

If it be asked, *how* the Company came to expend (on both divisions,) \$7,000,000 more than was contemplated under the Seymour contract, it will be answered in just *three* things, viz: in *changes* of contracts; in *Discount and interest*; and in *sacrifices* made to sustain the work. These sacrifices are enormous, whether wisely made or not, time only can determine.

In some future time, it is our intention to show, in what way, such sacrifices are made.

#### UNIFORM FOR CONDUCTORS.

We see that recently the conductors of the New York and Erie Railroad have either of their own accord or by direction of the company, adopted a uniform similar to the police of the city of New York. We are surprised to see also that many of the journals, taken by the novelty of the proceeding, applaud it quite highly. Now, for ourselves, we do not believe it will be productive of good in any shape. It might please the vanity of a pompous and ultra-ceremonious superintendent, or the fancy of a few vain and silly fops to be dressed up for show, as monkeys are exhibited; but men of sense will rarely wish to make themselves singular by a suit of uniform, when a simple band around the hat or other trifling badge answers all the purpose of distinction of office. Experience has proved for several years, that this is all sufficient for practical purposes; further than this is unnecessary, superfluous and ridiculous. It will have the effect of filling the office of conductor with a set of vain and silly men, instead of those whose solid sense and business capacity enables them to procure other situations where they can have the privilege of dressing as men in general, and not like the liveried lackeys of European noblemen.

Such an order could not have arisen from any careful consideration of the effects of the system, and should be rescinded before its evils are too apparent to be longer tolerated.

☞ The population of the city of Milwaukee for the present year, is 30,448.

#### DO THEY NEED RAILROADS AT THE SOUTH.

The following paragraph taken from the Charleston Mercury is pretty good evidence of the utility of railroad investments, however much its wisdom may be questioned in times of panic and revulsion.

"Reckoning up the receipts of Cotton at this port since the first of September last, we find it amount to a little over half a million of bales. In this we include the Sea Islands, and the amount received from Savannah. It is the first time we have approached this figure, and it places us second on the list of the Southern Cotton ports for this year.

"The receipts of Charleston are about 100,000 bales in excess of last year. Those of Savannah are also largely increased, though in a less proportion. The increase in both has been due in a great degree to two causes,—the extension of Railroad communications with Alabama and Tennessee, and the extraordinary interruption of river navigation in those States during the present season. The first of these causes is permanent, and the second is likely to have a great effect on future arrangements; because on the part of the Atlantic cities there is presented a certain, in competition with an uncertain, mode of transportation to market. It is not hard to see which will eventually triumph."

This significant fact affords strong inducements to those engaged in Railroad enterprises at this present moment in the various Southern States, to urge on their work. And it is not without its moral to the planters of Alabama and Mississippi. If they do not wish to become tributary to the seaports of distant states, they would do well to aid in a material way the enterprises of their own.

#### RAILROAD DEVELOPMENTS AT THE SOUTH.

—The Railroads already opened at the South are presenting some of the many wonderful developments that have already, from their frequency, ceased to attract attention at the North. Charleston is becoming a large exporting port for grain. We see it stated on the authority of the Memphis Eagle, that over 200,000 bushels of Wheat have already been consigned to a single house in that city.

The Northern parts of Georgia and Alabama, North Carolina, South Carolina and portions of Tennessee, will also contribute their share. In this manner a trade to Charleston almost entirely new, will spring up and enlarge.

#### HENDERSON AND NASHVILLE RAILROAD—TO CONTRACTORS.

This road as will be seen by reference to its advertisement, invites proposals for grading, grubbing, clearing and masonry, till the first of October. The road is 110 miles in length. A short notice of it, may be found in the Record of Nov. 2, 1854.

#### INSURANCE.

We need not say a word in suggestion of the necessity of Insurance on the depots, station houses, and machine shops of Railroad companies. Its necessity is apparent. But we would call the attention of our readers to the statement of the Metropolitan Insurance Company, of the city of New York, to be found in our advertising columns. The capital of the Company is \$300,000, and its officers certify that it is all *paid up*.

L. A. Ostrom, Esq., well known to our Railroad men, is the agent in Cincinnati.

#### THE MAILS.—THE ABSURDITIES OF OUR PRESENT ARRANGEMENT.

We have frequent occasion to complain of the present arrangements in the mail system of the country. But of all the defective arrangements, that regarding printed circulars, is the most apparent and the most unfair. The general government publish that they will carry *all* mail matter, that their charge for a written letter within certain distances, is three cents, that they will carry newspapers to regular subscribers in any part of the Union for 6¼ cents per quarter. Now a quarter contains, nearly 80 issues, the average cost to the subscriber for the postage of a single paper, is then about one thirteenth of a cent. The cost of postage on newspaper exchanges is nothing. The government publish that they will carry (that certainly implies without unnecessary delay,) printed circulars for one cent. Hence for circulars, which rarely weigh one twentieth as much as newspapers, the department receives thirteen times as much as for newspapers.

Now, how do they perform this business. Certainly not in proportion to the pay they receive. It is an established rule at least, that *all newspapers* should be distributed *every day*. *Circulars*, on the contrary, in our large cities, are only sent *twice a week*, and sometimes we know by experience not as often. The absurdity and injustice of the twice-a-week rule is apparent and flagrant.

It is, moreover, the manifest interest of the department, to encourage the sending of circulars in preference to newspapers, inasmuch as the compensation for carrying them is better. We do not wish to be understood as disparaging the benefits of cheap postage on newspapers. On the contrary, as publishers of a paper, we feel the necessity and advantage of having it carried with promptitude; but we do think, that oftentimes circulars of the greatest importance are unreasonably delayed. It is just as easy for the distributing clerks to distribute every day, as it is to do so twice a week. The labor in the one case is spread over every day, and in the other is concentrated into one. For ourselves, we like to get our circulars regularly.



## Railroads.

### LEXINGTON & BIG SANDY RAILROAD.

We are indebted to the officers of this company for a copy of the annual report of the president and directors of this company to the stockholders for the current year. At the date of the last annual report no county bonds had been sold, as the prices offered in market were then too low to warrant the sacrifice on the part of the road. In order to keep these bonds out of market during the season of extreme depression, the members of the board became personally responsible for large sums of money; these sums have since been mostly repaid, so that the personal liabilities of the directors are now inconsideable.

It was announced in the last report that the principal efforts of the company would be used to open the road from Lexington to Mt. Sterling and from its eastern terminus to Grayson. The present report says that this determination had been adhered to, and proceeds to say:

"We determined, however, to have the whole line from Lexington to Mt. Sterling opened at one time, and hence the work below Winchester has not been pushed faster than was necessary to complete it by the time of the completion of that between Winchester and Mount Sterling. The work at the East end of the line has been prosecuted with much energy and industry, and we expect that 8 to 10 miles of it will be ready for the rails by the 1st of September next. The completion of that much will greatly accommodate the iron manufacturers, and it is believed, will pay handsome profits. The part which will be so soon completed could have been extended six or eight miles further with a small cost, but for the Stewart tunnel, on which the work has been vigorously prosecuted, but which cannot be completed for many months to come. West of that tunnel, for several miles, the work is very light; some of the grading and masonry has already been done, and the remainder can be finished in three or four months, so as to extend the finished road about 15 or 16 miles. In leaving the Ohio valley, at Ashland, a tunnel is encountered of 570 feet, which, though opened through the hill, will not be finished before the 15th of August. The rock is so solid, that no apprehensions exist that it will ever require arching or securing in any way; indeed it is considered by judges who have seen it as being amongst the handsomest and best specimens of solid rock for sustaining a tunnel, which can be found anywhere.

"The cost of graduation, masonry &c., at contract prices, ready for the superstructure, from Lexington to Mount Sterling and from Ashland to the Stewart tunnel is \$563,210—of which work the amount already done

comes to \$284,210, leaving a balance of work to be done between the designated points, costing \$279,000. The graduation and masonry at, and west of the Stewart tunnel, towards Grayson, and the work done in Bath, are not estimated here. They amount to \$84,999.57. Thus it will be seen that the whole of the graduation and masonry up to the first of June, 1855, at contract prices, has amounted to \$369,209.57

"The company has paid the contractors for all work done to June 1st, and an advancement of cash has been made to them amounting to \$58,848.36, over the cash, which, by contract, was to have been paid them. This has been done to aid the contractors, whilst the company, in doing so, is kept entirely safe from any possibility of loss."

Among the means of the company are \$210,000 of what are termed Ashland Bonds. The stockholders of the Kentucky Iron, Coal and Manufacturing Company, held their annual meeting in Ashland on the 17th ult., and by resolution directed the President to make a mortgage on the estate of the Company including Ashland, to secure the payment of the stock, amounting to two hundred and ten thousand dollars, taken by that company in our road, and setting apart fifteen per cent of the sales of lots, as a sinking fund to pay the bonds of that company given to this road as they may fall due. The sum of \$210,000 so subscribed by that company, is a part of the original capital of that company, and necessarily, each stockholder is individually responsible for his proportion of said stock. With this individual liability of the stockholders, and a mortgage on real estate worth greatly more than the sum to be paid, with provisions for a large sinking fund to pay the bonds, and those bonds bearing 7 per cent interest, payable in New York, we cannot conceive that any indebtedness can possibly be better secured, nor should any bonds, bearing the same interest, be more valuable than those of the Kentucky Iron, Coal and Manufacturing Company.

Since the date of the last report the Officers of Fayette County and the city of Lexington have refused to deliver to the railroad company their respective bonds, which were voted by the people. After all attempts by persuasion had failed, the board instituted legal proceedings in the Fayette Circuit Court to compel the authorities to make the subscriptions as voted.

The Board also express their confident belief that the city of Louisville will make a subscription of \$200,000 and the Louisville and Lexington Rail Road a subscription also of \$200,000.

The report further says: We have had company bonds engraved, but have never yet had them completed ready to be sold or to be used, because we have not deemed it advis-

able to do so, so long as we had other means to carry on our work, and not until we had completed a portion of our road.

Some months since the Engineering force was greatly reduced, and the salaries of the President and all the Engineers were reduced 16 $\frac{2}{3}$  per cent and that of the Secretary one half. The Farmers Bank is Treasurer, and nothing is paid for performing this office.

Our resources are now as follows:

County Bonds, about.....	\$350,000
Ashland Bonds, 7 per cent.....	210,000
Individual and Company Subscriptions.....	667,000

But of the individual subscription \$533,000 are to be paid in work on the line of the road.

### CLEVELAND, COLUMBUS & CINCINNATI R. R.

We give below the detailed statement of the earnings and expense of this road for the six months ending July 1st, 1855. After deducting expenses it will be seen that the nett earnings for the six months have been \$342,210.57 equal to 7 1-5 per cent on \$4,746,470, the whole amount of capital stock and bonded debt. It will also be seen that the bonded \$98,900 is only about *one-fiftieth* of the capital stock. This feature cannot be too highly commended. The road was substantially built by its stockholders, and was built economically and *pays good dividends*. This latter feature will generally be found to be the case, where economy and self-reliance are practised in their construction. The cost of this road fully equipped with station buildings complete is a little less than \$35,000 per mile.

#### EARNINGS.

Passenger Receipts.....	\$242,808.92
Freight.....	314,991.94
Express.....	9,481.12
Mail.....	18,630.00
Interest Received.....	4,714.59
Rents.....	2,068.57
	<hr/> \$592,695.14

#### EXPENSES OF OPERATING THE ROAD.

Transportation & Gen'l Expenses, \$65,047.71	
Repairs of Track and Buildings, 28,521.00	
Repairs of Cars.....	27,447.60
Repairs of Locomotives.....	38,149.4
Repairs of Fences and Bridges.....	496.18
Station Expenses.....	11,751.41
Fuel.....	23,866.43
Oil and Waste.....	7,199.82
Printing and Stationery.....	2,736.51
Taxes and Exchange.....	1,271.72
Losses and Damages to property ..	4,809.12
Damages to persons.....	11,672.42
Damages to cattle.....	1,600.61
Damages by fire.....	525.10
	<hr/> \$250,484.57

Nett Earnings for six months,	342,210.57
The Gross Earnings for the above months in 1854 were.....	575,923.02
Increase for six months.....	16,772.12

#### ABSTRACT OF LEDGER.

To Construction account.....	\$3,964,897.11
Equipment.....	697,794.74
	<hr/> \$4,662,691.85

Bonds & Stocks owned by Co.:	
Madison County Bonds.....	1,500.00
Loan to Mahoning R. R. Co.,	24,000.00
Stock in Steamers Crescent City and Queen of the West,	54,390.33
Telegraph Stock.....	3,000.00
Columbus & Xenia R. R. Stock	5,300.00
Bellefaine & Ind. R. R. Stock	60,000.00
Clevel., Col., & Cinc. Cap. St.	100,000.00
Indianapolis & Bellef. R. R. St.	70,000.00
Columbus & Piqua R. R. Stock	10,000.00
Miss. & Atlantic R. R. Stock	18,000.00
Delaware County Bonds.....	6,000.00
Buffalo Mutual Ins. Script.....	310.00
	<hr/> \$352,500.33

#### Assets viz:

Balances due from other Companies & from individuals,	\$37,932.69
Bills Receivable.....	49,935.23







part. to condemn any lands or other property which the said lessee, his executors, administrators or assigns, may need and demand, and which the said company by its charter and amendments, thereto, is authorized to condemn at any time, the said lessee or his assigns may request the same to be done.

The said party of the first part further agrees to aid and assist the said lessee, his executors, administrators or assigns, in the protection of all the property of the Company hereby leased, and all the property the said lessee or any one under him may put on the road, and to do any and every thing under its franchise in aiding and protecting the said lessee in the full enjoyment of the property and privileges hereby leased, and all the incidents thereto. It is understood and agreed, however, that the said lessee is to pay all damages that may be awarded to be paid to any person or persons growing out of further condemnation of property, for all which payments the said Company agrees to reimburse the said lessee or his assigns on the termination of this lease.

The said party of the second part for himself, his executors, administrators and assigns, hereby covenants to and with the said party of the first part, that during the continuance of this lease he will pay the interest as it accrues on the first and second mortgage bonds of the Company; that he will put and keep the road and all its structures in good condition, and in every way suitable for the business of a first class road; that he will erect and maintain every necessary structure or improvement which the present or growing demands of the business may require; that he will keep the rolling stock in good repair and condition, and add to the same sufficient to meet the current demands of the business of the road, and to expend within the next five years at least five hundred thousand dollars, in increasing the rolling stock and making other necessary structures and improvements on the road, and to conform in operating the road to the charter of the Company; that he will operate the road so as to accommodate all the public demands in the transportation of passengers and freights; that he will keep it in good order, and at the end of said term of fifteen years will surrender the road, its rolling stock and appurtenances and all which he has added thereto in good order; and that he will employ competent and sufficient officers, agents, and servants, and so superintend their actions and conduct during the continuance of this lease as to preserve the character of the road as a first class road, and to encourage the travel and transportation of persons and property thereon; that he will not do or suffer to be done any act to the injury of the character or property of the road, and that during the continuance of this lease he will preserve and maintain the property in such repair and efficiency as will command the public confidence.

The right is reserved to the lessee to surrender this lease by giving to the said Company thirty days' notice of his purpose so to do; but in the event the lease is so surrendered, then the lessee shall have no further demand or claim on the said Company, nor shall the said Company have any further demand or claim on the said lessee, except for those liabilities which may have occurred under the lease up to the time of such surrender.

The said party of the second part further agrees to and with the said party of the first part, at the end of each and every year during the term of this lease, after the first five years thereof have expired, (besides paying the interest on said first and second mortgage bonds, and complying with the other conditions of this lease,) to pay to the said Company the sum of twenty-five thousand dollars, which may be discharged in money or in any of the present debts or liabilities of the said Company, except the liabilities growing out of any of the debts of the Company for which the said Company has heretofore given liens on the road, and the debts or liabilities of the Company so taken up by the lessee, shall be good against the Company in the payment of the said sum of twenty-five thousand dollars, any statute of limitations to the contrary notwithstanding.

### BALTIMORE & OHIO RAIL ROAD.

*The Kingwood Tunnel.*—In order to satisfy public curiosity upon the condition of this very important work, about which so many reports have been circulated to the disadvantage of the Railroad Company, we have gathered the following particulars:—The tunnel is situated upon the Baltimore and Ohio Railroad, 260 miles from Baltimore and 119 miles east of Wheeling. It is 7 miles west of the romantic valley of the Cheat river, and some 19 miles east of Grafton, the junction of the Northwestern, or Parkersburg Railroad. Its length, with the two heavy approach cuts, is above 5,000 feet, or say, one mile. The tunnel proper is 4,100 feet long.

The greatest height of the ridge over the tunnel is about 220 feet. It is cut through slate rock, and is overlaid for a considerable distance with a good limestone roof. For the remaining portion of its length, the roof has been supported by timbering preliminary to the final arching. The original width of the opening was 22 feet. The necessity of preparing for a double track however, with the heavy side walls for sustaining the arch, required, that the opening should be widened throughout its entire length. This is done by cutting away from three to four feet upon each side, making the excavation twenty-eight feet in width. The sidewalls are built of solid masonry laid in cement. They are two feet wide, and ten feet high above the tracks. This will reduce the width when finished to 24 feet. Of the 4,100 feet of tunnel, it is supposed that not more than 3000 feet will require arching, the limestone at the western end being sufficiently solid to sustain itself.

For more than 2000 feet the side walls are now completed and are being rapidly extended for the remaining 1000 feet. The arch is to be composed of brick for the greater portion, and of iron for some 1300 feet. The iron arching is already nearly completed, about 1000 feet having been placed in the weakest and most troublesome parts of the work. The greater portion of the weak section of the tunnel which had been interrupting the business of the road during the month of July is embraced in this, and is now permanently secured. The iron castings which form the arch are in two pieces—each three feet wide, and strengthened by broad latitudinal ribs. Each piece weighs one ton, making some 900 tons of iron in the 1300 feet. This forms a very substantial as well as a novel ceiling.—The brick work is also being pushed with great rapidity and care. The brick, of which an enormous quantity will be required, is made at Moundsville, on the Ohio river, 100 miles from the tunnel.

One hundred feet of this part of the arching is completed, and the work is progressing very satisfactorily. Notwithstanding the serious interruptions to the business of the road which occurred during the removal of the side earth, and the timbers heretofore supporting the roof, not the slightest accident has happened to either passengers or goods going over the route. Happily the fear of interruption even is now nearly passed, since most of the more imperfect roofing has been removed, and substituted by the new and perfect arch.

To render the free and full use of the road a matter of certainty and to provide for every possible contingency in view of the steadily increasing through travel and the enormous freighting business that must offer during the

next season, an independent track is being built over the bridge. The length of this new road is but two and one eighth miles, and the highest grade is 200 feet. The ordinary engines of the company will haul four of the large tonnage cars at a load over this track with thirty-two tons of goods at six miles per hour—the speed observed in going through the tunnel. This will ensure the transit of passengers and freight with the dispatch provided by the company's time-tables, which is sixteen hours for passengers, and a little less than forty-eight hours for freight. This very important improvement, which gives the road a double security against delays, will be in readiness for use on the 20th of this month.

It will be seen, therefore, from the above statement, that the serious causes of the late trouble to the company's business are virtually removed, and that no fears need be indulged about future interruptions from the tunnel upon this road, which has now acquired so important a position as one of the leading channels of communication between the Atlantic and the Great West.—*Bal. Am. Aug. 17.*

**CLEVELAND, PAINESVILLE AND ASHTABULA RAILROAD.**—The following gentlemen have been elected Directors for the ensuing year: Wm. Case, Charles Hickox, Thomas M. Kelly, Stillman Witt, Amasa Stone, jr., H. B. Payne, Wm. D. Beattie, Cleveland; Alfred Kelley, Columbus; D. R. Page, Madison, Ohio; T. P. Case, Auburn, N. Y.; Samuel J. Randall, Philadelphia; J. B. Johnson, Erie, Pa.; James Miles, Girard, Pa.

At a subsequent meeting of the said Directors, Wm. Case was appointed President, Charles Hickox, Vice President, and Geo. B. Ely, Secretary and Treasurer.

**SOUTH WESTERN RAILROAD, GA.**—The receipts of cotton by the South Western Railroad at Macon have been:

Received in May.....	6,003 bales.
Of which 5,898 were through to Savannah, and 105 to Macon,	
Received in June.....	4,117 "
3,987 through to Savannah, 124 to Macon	
Received in July.....	940 "
938 for Savannah, and 2 for Macon.	
Received Previous to May.....	119,931
<b>Total Receipts this season.....</b>	<b>129,931</b>

**MACON AND WESTERN RAILROAD, GA.**—The following are the receipts of cotton and wheat on the above road:

Receipts in June.....	1,958 "
To Savannah 1,691, to Macon warehouses 267	
Receipts in July.....	774 "
To Savannah 648, to warehouses 126.	
Received previous to June.....	69,808 "
<b>Total receipts this season.....</b>	<b>91,540</b>

**EARNINGS OF THE CLEVELAND, COLUMBUS AND CINCINNATI RAILROAD, for the month of July, 1855.**

<b>JULY, 1855.</b>	
Passengers and Express.....	\$41,293.88
Freight.....	46,159.55
Mails.....	3,105.00
	<b>\$90,558.43</b>
<b>JULY, 1854.</b>	
Passengers.....	\$38,809.34
Freight.....	50,018.28
Mails.....	3,105.00
	<b>\$91,932.62</b>
Decrease.....	1,374.19
It will be observed, that the movement of Passengers has been greater and that of freight less, during July of the present, than during July of the last year.	



## CLEVELAND AND PITTSBURG RAILROAD.

We learn from the last report of this Company that there are completed and in operation one hundred and thirty-three miles, viz :

	Miles.
From Cleveland to Wellsville, on the Ohio.....	101
Tuscarawas Branch.....	32
Total.....	133
The extension of the main line from Wellsville up the Ohio river to Beaver, and down the river to Wheeling, will add.....	61

Making, when complete..... 194

The river division is all under contract and will be completed next summer, and the funds provided for the grading, masonry and bridging.

The cost of the main line and Tuscarawas Branch, including depot grounds, wharves, etc., and twenty acres of land at Cleveland, and equipment—one hundred and thirty-three miles,

Has been.....	\$4,312,000
There has been expended on the River Division—sixty-one miles.....	506,000
Total.....	\$4,818,000
To complete the River Division, there will be required for graduation, masonry and bridging.....	\$320,000
Superstructure.....	500,000
Additional equipment.....	130,000
	950,000

Total.....	\$5,768,000
Toward the graduation, etc., the Company has Beaver County Bonds.....	\$98,000
Alleghany County Bonds.....	90,000
Individual Subscriptions.....	85,000
Total.....	\$273,000

NEW YORK AND NEW HAVEN RAILROAD.—The receipts of the New York & New Haven Railroad for July were ;

Passengers.....	\$66,087.12
Freight.....	10,000.00

Total.....	\$76,087.12
Paid to Harlem Road.....	4,601.18

Total.....	\$71,485.94
July 1854.....	78,261.94

Decrease..... \$6,776.00

The receipts of the Stonington Railroad for the same month were :

	1855.	1854.
Passengers.....	\$14,003.68	\$16,548.10
Freight.....	7,517.00	7,174.04

Total.....	\$21,525.63	\$23,722.14
Decrease in 1855.....	\$2,196.46	

THE WESTERN AIR-LINE RAILROAD—GALVA, ITS BUSINESS AND PROSPECTS.—A contract has just been effected by the Directors of the Air-Line Railroad Company with the Bishop Hill Colony, for the grading, bridging and laying of the ties of the section of Air-Line between Galva, the intersection of the Central Military Tract Railroad, and Wyoming, on very favorable terms for the company.

The colony further propose, when the company are ready, to contract for the construction of the entire road, including the rolling stock, between Lacon and the Mississippi River. The work upon the section let is to be commenced immediately.

This is very encouraging news to the friends of the road, also to the citizens of Galva, who are deeply interested, and have subscribed largely to the stock to secure its crossing at that point. This place has many natural advantages to make it a large inland town, and with the railroad facilities, it must be one of the most promising along the entire road. The Peoria and Rock Island Railroad also crosses at this point.—*Dem. Press.*

## Miscellaneous and Mechanical.

## STRENGTH OF BOILERS—CAUSES OF EXPLOSION.

The general impression prevalent among even intelligent people, is, that steam boilers are burst by carrying steam at too high a pressure. This idea is erroneous and probably owes its origin to the fact that explosions most frequently occur when steamboats are racing or running against time or otherwise carrying an unusual pressure in the boiler. That it is a fact that boilers are generally burst when they have a very high pressure, we shall not attempt to deny, but we shall show presently that no pressure ever employed in the working of a steam engine is capable of producing an explosion and that the existence of a high pressure at times of explosion is only a fortuitous circumstance.

The strength of steam boilers is almost fabulous. Experiments made by practical men have demonstrated that steam boilers of ordinary construction can sustain a pressure of over 3000 lbs to the square inch. Boilers have been tested to over 1500 lbs. and not the slightest indication of a disposition to burst was manifested. Now, when we consider the immense tenacity of a single strand of wire, how much it will sustain, and then remember that every plate of iron used in a boiler is of the same tenacious metal, we shall see at once the immense strength of these plates. But for the figures. Haswell gives the tensile strength of medium bar iron at 60,000 lbs. per square inch of section. Now in boiler plate, which is one quarter inch thick, the section of a strip an inch wide is 1 inch by  $\frac{1}{4}$  inch or  $\frac{1}{4}$  square inch. The tensile strength then is  $\frac{1}{4}$  of 60,000 lbs. or 15,000 lbs. according to the tables. That is, it would take a force of 15,000 lbs. per inch to tear asunder ordinary boiler plate. Now allowing this estimate to be the ultimatum of strength for the best material, one-fourth of the above will not be too high an estimate for general application. We say then that a well made cylindrical boiler can stand a pressure of 3750 lbs. per square inch before it will burst.

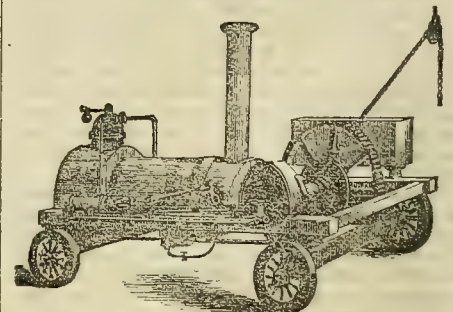
Such being the fact the cause of explosions must be looked for in some other direction than in that of undue pressure of steam. Now what are the facts in ordinary explosions of boilers. The engineer is crowding his machine, it is therefore important for him to keep steam as high as possible and in order to do this he keeps water as low as possible, for the less water he has consistent with safety, the faster the boiler makes steam. The water is then as low as possible, the fire hot, the vessel is brought to a stand, the engine stops, the pumps cease throwing additional water, the steam is no longer withdrawn from the boiler by alternate supplies and

rests, things in the boiler come to a comparative rest; the pressure on the surface of the water being now uniform, it is no longer thrown around in the peculiar surging manner that it is when the engine is working. Hence, if the water is too low, the tops of the flues are no longer protected by the surges and in consequence become red hot from the intensity of the fire. The vessel now starts and the engine begins to use the steam again. Instantly on the withdrawal of the first cylinder full, the surface of the water in the boiler is disturbed and thrown into surges again, it comes into contact with the red hot iron, is decomposed, springs into its constituent gases which occupy 2000 times the space of water and the consequence is an explosion terrible in its nature and its consequences. The sheets of iron, strong as they are, are torn as we would tear a sheet of paper. The steam a moment before subjected to a pressure of perhaps 150 lbs. to the square inch is now relieved to the ordinary pressure of the atmosphere and the water already beyond the heat necessary to convert it into steam of atmospherical pressure, springs into vapor occupying 1700 times its former volume.

Now these are not merely theoretical views, they are borne out by practical experience. The surging wave that in its course over the heated flues produces the explosion, often leaves its traces on the torn and bent sheets of the boiler. Its course is plainly marked and a practised eye can readily trace it.

But it will be asked, after all was it not the undue pressure in the boiler that led to the explosion. Certainly not, it was the lack of water and the allowing of the flues to become overheated that produced *per se* the explosion. The high pressure was only a fortuitous accompaniment; under the same circumstances, that is too low water, the boiler would have burst with even a less than ordinary pressure.

## PORTABLE STEAM ENGINES.



It is a great desideratum to obtain a good, substantial and withal portable and cheap steam engine. Railroad companies and contractors have frequent need of such a machine, and its usefulness is self-evident. The fact that a steam engine never tires nor needs sleep; that as long as it is supplied with wood and water it does its duty unflinch-



ingly, gives it a superiority over horse power, that is universally acknowledged.

The engine of which we give a cut, is manufactured in Philadelphia by A. L. Archambault. It is placed on a very strong frame of wood set on wheels, it is therefore perfectly portable. The boiler is of the best form of locomotive boiler, it is therefore as light as is consistent with the requisite power. The cylinders in the smaller, and the cylinders in the larger engines are placed horizontal and are easy of access. The cut represents the engine with the drum attached for hoisting purposes. When used for the purpose of sawing or driving other machinery, instead of the drum and rope or chain, the machine is provided with a shaft fly-wheel and pulley and driven with a belt on the main shaft. In the larger engines the cylinders are placed on each side of the boiler and drive cranks placed at right angles to each other.

These engines are made from five to twenty horse power and wherever used, have proved efficient. One great advantage they have, is, they are ready for use when they leave the factory.

#### WESTERN PENNSYLVANIA.—SEMI-BITUMINOUS COAL.—HOT BLAST FURNACES.

##### LAWRENCE COUNTY.—ONE FURNACE.

1. SOPHIA FURNACE: New Castle; Knap, Wilkins & Co, constructed in 1853; capacity 5000 tons per annum: Stack 45 feet high; bosh 13 1-2 feet diameter; five tuyers, 1 1-2 inches diameter; blast driven by steam power; now in blast, metal made for the Orizaba Mills. For other particulars see closing notes.

##### MERCER COUNTY.—EIGHT FURNACES.

2. SHARON: 1 mile N. by E. of Sharon, on the Shenango river; Duncan & Lytle, Sharon; constructed in 1846; capacity, with an improved blast would be about 2000 tons; present, 1800; Stack, 40 feet high; bosh 10 feet diameter; three tuyeres, 2 1/2 inch diameter; steam power; in operation this year.

3. MIDDLESEX: at Middlesex; Sennett & Warren; constructed in 1845; capacity about 2000 tons; stack 38 feet high; bosh 10 feet diameter; three tuyeres, 2 1-4 inches diameter; steam power; in operation this year.

4. SHARPSBURG, formerly the Blanche; at Sharpsburgh; D. & J. P. Agnew; Sharon; constructed in 1847; capacity 2500; stack 50 feet, bosh 11 feet; three tuyeres; 3 1-2 inches diameter; steam power; now in operation.

5. CLAY: 8 miles N. E. Sharon; Sharon Iron Co.; Sharon, constructed in 1845; capacity 1800 tons; stack 36 feet; bosh 9 feet; 3 tuyeres, 2 1-2 inches diameter; steam power; operating this year; metal made for Sharon Iron Co. Mills; at Sharon.

6. SHENANGO OR BIG BEND: on the Shenango river, near Delaware Grove; A. L. Crawford, Trustee; New Castle; constructed in 1845; capacity 1200 tons; stack 36 feet high; bosh 7 1-2 feet; two tuyeres, 3 inch diameter; steam power; operation for this year doubtful.

7. HAMBURG: at New Hamburg; Steward, Robinson & Co.; New Hamburg or Pittsburg; Mr. Sanford Manager; constructed in

1846; capacity 1900 tons; stack 40 feet; bosh 8 3-4 feet; three tuyeres, 2 inch diameter; steam power; operating this year.

8. SHENANGO OR HARRIET: West Greenville; Stewart & States, West Greenville; constructed in 1846; capacity 3000 tons; stack 45 feet high; bosh 11 feet 5 inches diameter; 3 tuyeres, 2 1-2 inches diameter; steam power. Operations for this year promising.

9. MARY ANN: at West Greenville, constructed in 1846; abandoned; situation good; stack 45 feet; bosh 10 feet; capacity about 2000 tons.

SUMMARY.—There are nine furnaces using, or which are calculated for semi-bituminous coal in this State. Their united capacity in full, without allowance for breakages, deficiencies of machinery, or mismanagement, or mis-supply of stock, is 19,400 tons per annum, not including the Mary Ann, noted as *abandoned*.—The actual yield for 1854 was 14,684 tons. Part of the year giving very little encouragement for driving up the product, and provisions being very high and scarce without purchasing at a distance. The crops this year super-abundant for home use.—In estimating the capacity of the furnaces, where the ores and fuel are nearly of the same composition, in fact the only differences of note at the furnaces is in the selection of sorts, regard being had to size of furnace, force and heat of blast, and prompt management of stock. At the Sharpsburg are employed 20 hands at furnace work, 8 mining coal, 14 mining ore, 2 at limestone, 5 teamsters for coal, and 5 for ore and limestone; in all 58. Of horses or mules, there are 20 in all employed. Usually there are 2 horses or mules, and 2 men employed about the furnace, besides those enumerated—without including the latter there are employed in all 3 hands to each 100 tons of iron produced; and 1 horse or mule to each 100 tons of iron. The charge of the Sophia is 475 lbs. coal, 450 lbs. ore, 140 lbs. limestone; which is the average of the semi-bituminous furnaces, adding 50 to 100 lbs. extra coal to each charge for softer grades of iron. The writer saw no iron from these furnaces softer than a number 2 grade, as classed at the east. Ore and coal are mostly purchased by all the furnaces,—the mining being carried on by parties, under contract. Ore costs from \$1.80 to \$2 per ton. Coal \$1.90 to \$2.10 per ton, 28 bushels. Limestone \$2.00 to \$2.20 per ton. Three tons of coal are consumed in producing one ton of iron, as ascertained by a number of annual accounts. There were therefore consumed in 1854, 44,052 tons coal in producing 14,684 tons iron; employing 95 men in mining and hauling coal, and 72 horses and mules. The ore yields by this account, a trifle more than 35 per cent. It should be observed, that the writer noticed a greater waste of "tears," or drops of iron, among the slag of these furnaces, than any others unless it were the slag of some of the oldest cold blast charcoal furnaces where the fluxing had been quite imperfect. In 1854 there were 41,733 tons of ore consumed. The sulphur in the coal and pyrites of the ore, either by their special proportion, or by the peculiar decomposition of gaseous portions near the tunnel head in the furnace, operate to neutralize the phosphate of lime in the ore, occasionally producing, when the latter is in excess, a cold short iron. Usually the sulphuret is in excess, and produces a red short iron. This species of ore is generally styled Limestone Carbonate. In the past year the

Sharpsburg, used for a time one third Champaign magnetic ore, and one third Lake Superior, a micaceous variety of the specular ore. The Sharon Iron Co. possess the greater part of the Iron Mountain Co. stock, (L. S.) and are preparing to have a regular supply of this rich ore, brought through the Lakes and Beaver Canal. The cost is estimated at \$5 delivered, which will be nearly as cheap as the ore in the contiguous hills, estimating by their relative richness, and invaluable for the improvement of quality.—*Mining Chron.*

#### RAILROADS AND CANALS FOR HEAVY FREIGHT—COAL TRANSPORTATION.

The following reports of coal transportation on the Reading Railroad and Schuylkill Canal, will prove what we have often said of the advantages of railroad transportation even for heavy freights.

READING RAILROAD.—Amount of Coal Transported on the Philadelphia and Reading Railroad, during the week ending Thursday, August 9th, 1855:

	Tons.	Cwt.
From Port Carbon.....	19,068	16
" Pottsville.....	3,267	05
" Schuylkill Haven.....	29,467	12
" Auburn.....	1,034	04
" Port Clinton.....	6,548	14
Total for week.....	69,386	11
Previously this year.....	1,356,354	00
Total.....	1,415,740	11

To the same time last year.....1,256,829 19

SCHUYLKILL CANAL.—Amount of coal transported on the Schuylkill Canal for the week ending Thursday, August 9th, 1855:

	Tons.	Cwt.
From Port Carbon.....	8,952	01
" Pottsville.....	846	08
" Schuylkill Haven.....	17,246	18
" Port Clinton.....	1,356	05
Total for week.....	28,401	12
Previously this year.....	561,693	02
Total.....	590,094	14
To the same last year.....	516,910	06

#### LACHENE CANAL.

Statement of business during the month of July, 1855.

The following statement we condense from the official reports of the Company, as published in the *Mon. treal Commercial Advertiser*:

	NO.	TONS.
UPWARDS.		
The total number of vessels passed during the month was.....	457	33,296
Steamers.....	166	15,053
	632	48,349
The total number of passengers was.....		4,454
The tonnage of Merchandize was as follows:		
Mineral products, class 1.....		6,209
Grain, cattle and iron, class 2.....		2,119 1/2
Manufactured articles from vegetable products and manufactures of iron, etc., class 3.....		4,591 1/2
do do do do do 4.....		1,112 1/2
Timber, etc., class 5, M. C. feet.....		727 1/2
DOWNWARDS.		
Vessels.....	373	28,765
Steamers.....	166	15,256
	539	44,021
Passengers.....		4,111
Merchandize, class 1.....		1,498
" " 2.....		654 1/2
" " 3.....		3,978
" " 4.....		118
Timber, etc.....		28,835



## TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D. ASK'D.	SHS. OFF'D. ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872	7 1872		
Baltimore and Ohio.....	Transferable. Taxed.....	6 1885	79%	100 44 44
Do do.....	Coupons. Not Taxed.....	6 1875		
Do do.....	" ".....	6 1880		
Do do.....	" ".....	7 1880		
Do do.....	" ".....	6 1885		
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866	98	50 45
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866		
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870	97 99	98 100
Chicago and Mississippi.....	1st " ".....	7 1862		
Do do.....	2d " ".....	7 1874	65	
Chicago and Aurora.....	1st " ".....	7 1866		
Cincinnati, Newcastle and Mich.	Real Estate.....	7 1859		
Cleveland, Columbus, and Cin'ti	1st mortgage, convertible.....	7 1859	100	
Do do.....	No mortgage, convertible.....	7 1855		
Cleveland and Mahoning.....	" ".....	7 1861		
Cleveland, Paines, & Ashtabula.	1st mortgage.....	7 1861		
Do do.....	2d " not convertible.....	7 1861		
Cleveland and Pittsburgh.....	1st " convertible.....	7 1860		73 75
Do do.....	1st " 2d sec. convertible.....	7 1873		
Cleveland and Toledo.....	1st mort. not conv. '73.....	7 1863	93 94	50 90 93
Cleveland, Zanesville, & Cin'ti	" ".....	7 1867		85 86
Cincinnati, Hamilton & Dayton.	1st mortgage " till 1855.....	7 1860	85 88	
Do do.....	2d mortgage.....	10 5 & 10 y's	27 30	
Cincinnati, N. C. & Michigan.....	1st mortgage, real estate, conv.....	8 " "	44%	12 14
Cincinnati Western.....	2d " ".....	7 " "	68 71	40 45
Cincinnati, Wil. and Zanesville.	Real Estate.....	8 1859	40	14 15
Cincinnati, Ind. and Chicago.....	1st mortgage, convertible.....	7 1862	75 76	
Cincinnati and Chicago.....	2d " ".....	7 " "	60 61	
Columbus, Piqua and Indiana.....	1st mortgage, convertible.....	7 1859	80	92 100
Columbus and Xenia.....	2d " " till 1862.....	7 1863	65 65	50 30 31
Covington and Lexington.....	Income.....	10 " "	72 75	50
Do do.....	" ".....	7 1867		50 20 22
Dayton and Michigan.....	1st " ".....	7 1862		20 21
Dayton and Western.....	1st " ".....	7 1862		
Dayton, Xenia and Belpre.....	1st " ".....	7 1864	26 30	
Eaton and Hamilton.....	1st mortgage.....	7 1862	60	25 45 50
Erie and Kalamazoo.....	1st mort. guaranty Mich. S. R. R.	7 1862		
Evansville and Crawfordsville.....	1st mortgage.....	7 " "	80 81	
Fort Wayne and Southern.....	" ".....	" " "		12 14
Franklin and Warren.....	" ".....	" " "		
Gatena and Chicago Union.....	Pledge of second section, conver.	10 1853-6	92%	100 110 111
Hillsboro and Cincinnati.....	1st mort.....	6 " "	64 65	50 25 27
Illinois Central.....	1st mortgage, not convertible.....	6 1875	87 89	100 97 100
Do do.....	Freeland.....	7 " "	87 88	
Indiana Central.....	1st mortgage, convertible.....	7 1866	63%	50 50 52
Do do.....	" ".....	10 1857	80	50
Indianapolis and Bellefontaine.	1st " ".....	7 1860-1	75	25 50 50
Indianapolis and Cincinnati.....	2d mortgage.....	7 " "	80 82	50 68 73
Indianapolis and Lafayette.....	" ".....	7 1861		50
Jeffersonville.....	1st " not ".....	7 1861		36
Junction (Ohio).....	1st " ".....	7 1867		11 15
Do Indiana.....	Real Estate.....	10 " "	72 73	12%
La Crosse and Milwaukee.....	" ".....	8 1864	77 82	100
Little Miami.....	1st mortgage, not convertible.....	6 1883	86 90	50 95 100
Do do.....	" " till 1855.....	7 1861		
Louisville and Nashville.....	" " unconvertible.....	7 1858	9	100
Lyons', Iowa, Central.....	1st mortgage, convertible.....	7 1873		
Mad River and Lake Erie.....	1st mortgage, convertible till 1855	7 1855-6	75	50 40 43
Do do.....	2d " ".....	7 1866	75	
Do do.....	Dividend.....	7 1860	75	
Madison and Indianapolis.....	1st mortgage, convert. after 1853,	6 1861		50
Marietta and Cincinnati.....	Domestic Bonds.....	" " "		50 27 30
Do do.....	2d " ".....	" " "		50
Hillsboro and Cincinnati.....	1st " ".....	" " "		
Maysville and Big Sandy.....	" ".....	" " "		
Maysville and Lexington.....	1st mortgage, convertible.....	6 1873		50
Memphis and Charleston.....	" ".....	" " "		
Michigan Central.....	No mortgage, convertible.....	8 1860	97	101 102
Do do.....	" ".....	8 1855-6		
Do do.....	" ".....	8 1857-8		
Michigan Southern.....	1st " ".....	7 1860-90	100	103 105
Milwaukee and Mississippi.....	1st " ".....	8 1862		
Mobile and Ohio.....	1st mortgage 6s. 1884.....	" " "		
Nashville and Chattanooga.....	" ".....	" " "		
New Albany and Salem.....	mortgage on 1st section.....	10 1858-62		50 16
Do do.....	" " on other sec. con.....	8 1864-75		
New Castle and Richmond.....	1st " convertible.....	6 1873		
New York Central.....	" ".....	" " "	104 105	
New York and Erie.....	1st mortgage, not convertible.....	7 1867		103 104
Do do.....	2d " convertible.....	7 1871	85 88	50 53 54
Do do.....	" ".....	7 1883	100 101	
Northern Cross, Ill.....	1st mortgage, convertible.....	8 1873		
Northern Indiana.....	1st " not convertible.....	7 1861	79	
Do do.....	1st " ".....	1868	90 91	105 106
Do do.....	Construction Bonds.....	" " "		
Ohio Central.....	1st mortgage, convertible.....	7 1861	61	40 46
Ohio and Mississippi.....	2d " ".....	7 1880	52 53	12 18
Ohio and Indiana.....	1st " ".....	7 1867		50 14 18
Ohio and Pennsylvania.....	" ".....	7 1865		
Do do.....	Income. No mortgage, convert.	7 1872		50
Pacific, Mo.....	" ".....	" " "		
Panama.....	1st mortgage, convertible.....	7 1866	101 105	109 110
Parkersburg (or N. Western Va.)	Guar. City of Balt.....	7 1873		
Pennsylvania.....	1st mortgage, convert. till 1860.....	6 1880		50 43 40
Peru and Indianapolis.....	1st " ".....	7 " "		25 30 31
Rock River Valley Union.....	1st " ".....	7 1872		50
Sandusky and Mansfield.....	1st " ".....	7 1860		
Do do.....	2d " ".....	10 1853-7		
Scioto and Hocking Valley.....	1st " income.....	7 1861	50 51	50 50 51
Southwestern, Tennessee.....	" ".....	" " "		
Springfield and Columbus.....	" ".....	" " "		
Steubenville and Indiana.....	1st mortgage, convertible.....	7 1865		
Terre Haute and Alton.....	1st " ".....	8 1862-72	91 93	
Do do.....	2d " ".....	8 1865	89 90	
Terre Haute and Richmond.....	1st " ".....	6 1866		
Toledo, Norwalk and Cleveland.	1st " ".....	7 1863	87 88	50
Do do do.....	2d " ".....	" " "		
Do do do.....	Guar. of C.....	1883		

## STOCK TABLE.

CORRECTED WEEKLY.  
GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D. ASK'D.
U. S. Loan.....	6	1856	105 105
Do.....	6	1862	112 113
Do.....	6	1867	117 120
Do.....	6	1868	119 120
Do (int. ceased July 1) 5	5	1853	102
Do Coupons.....	6	1862	118
Do ".....	6	1867	118
Do ".....	6	1853	101
STATE.			
Alabama.....	5		
California.....	7	1870	87 88
Arkansas.....	6		96
Georgia.....	6		98 99
Do.....	7		
Illinois Canal Bonds.....	6	1860	
Do do registered.....	6	1860	
Do do.....	6	1847	
Do do registered.....	6	1847	
Do do Internal Imp't.....	6	1847	16 1/2 108
Do Interest do.....	6		64 64
Indiana.....	5		86 87
Do.....	2 1/2		53 54
Do Canal Loan.....	6		
Do do preferred.....	5		
Do special preferred.....	5		
Kentucky, 30 years.....	6	1871	103
Do 16 years.....	6		102
Do large bonds.....	6	1869-72	100 1/2
Do.....	5		
Louisiana.....	6		95 96
Michigan.....	6		97 98
Missouri.....	6		95 96
New York.....	6	1860-61	111 114
North Carolina.....	6		97 100
Ohio.....	6	1856	100
Do.....	6	1860	105 106
Do.....	6	1870	110 111
Do.....	6	1875	112 113
Do.....	5	1855	
Pennsylvania.....	6		
Do.....	5	1870	88 89
Tennessee, long loan.....	6	1892	95 96
Do Coupons.....	5		81 83
Virginia Coupons.....	6	1886	98 100
CITY SECURITIES.			
Albany.....	6	1871-81	99 1/2
Allegheny.....	6	1875-7	80
Baltimore.....	6	1870-80	99 100 1/2
Do.....	5	1865	
Boston Bonds.....	4 1/2	1860	
Chicago.....	6	1873-7	92 95
Cleveland.....	6	1879	103 105
Cincinnati.....	6	1861-92	96 96 1/2
Do.....	6	1897	
Do.....	5	1884	
Do W. W.....	6	1865	
Covington.....	6	1857	80 80
Jeffersonville.....	6	1890	70
Louisville.....	6	1880	86 87
Memphis.....	6	1882	72 1/2
New York.....	7	1857	100 1/2
Do.....	5	1858-00	96 99
Do.....	5	1870-5	97 100
Do.....	5	1890	
Philadelphia.....	6	1876-90	94 95
Pittsburgh.....	6	1869-78	81 82
Do coupons.....	6	1883	
Racine.....	7	1873	61 63
St. Louis.....	6	1870	85 86
Wheeling.....	6	1873	81 83
COUNTY BONDS.			
Bourbon, Ky.....	6	1881	77 80
Darke, O.....	7		
Fairfield, O.....	7	1862	
Fayette, Ky.....	6	1881-3	75 75
Hancock Co.....	7		70 75
Mason, Ky.....	6	1881	73 76
McCraken Co. Ky., endorsed by			
New Orleans and Ohio R. R.			
St. Louis.....	6	1866	80 85
Do.....	7	1871	
BANKS.			
OHIO.			
American Exchange Bank, N. Y.....			105 1/2
Ohio Life Insurance and Trust Co.....			99 1/2 103
Washington Insurance Co.....			84 85
City Insurance.....			70
Cincinnati Insurance Co.....			84
National Insurance.....			75 80
KENTUCKY.			
Bank of Kentucky and Branches.....			
Northern, and Branches.....			100
Southern, and Branches.....			
Bank of Louisville.....			93
Kentucky Trust Co.....			
Farmers' Bank of Kentucky.....			105 108
Commercial Bank of Kentucky.....			
INDIANA.			
State Bank and Branches.....			
TENNESSEE.			
State Bank and Branches.....			
Union.....			
Planters.....			
LAND WARRANTS.			
160 acre warrants, per acre.....	Buy'g	Sell'g	
80 acre warrants.....	\$1 10	1 12 1/2	
40 acre warrants.....			



## TRADE OF MONTREAL.

The stocks of all but staple goods in the hands of merchants are very small, and the orders for fall shipment have been equally so. Nor do we expect that, even with good crops, the increase of purchasers will be very large this fall. The country population are yet behind hand with their last year's payments, and many are in debt for seed and food. Their payments will place the country trader in a position to meet his own engagements, and in a position to become a moderate purchaser. The most hopeful result we anti-



pate is a clearing off of old indebtedness, and a preparation to begin operations again on a safer footing.

The following is the statement of tonnage arrived at Montreal from sea, for corresponding periods ending Aug. 4, 1852, 1853, 1854, and 1855.

	No. of Vessels.	Tonnage.
1852.....	82	23515
1853.....	105	30201
1854.....	127	40083
1855.....	85	24558

It will be seen from the table, that the increase was steady up to 1854; but that for the present year it is a little more than it was in the year 1852. The failure of crops has been, we believe more generally felt, as far as movement of produce is concerned, during the early part of the present, than in the latter part of last year.

#### RAILROAD PROJECT FROM CHICAGO TO LAKE SUPERIOR.

We find in the Chicago Weekly Press the following remarks on the cost and probable productiveness of a railroad from that city to the mining regions of Lake Superior. Mineral roads have in many sections of country proved the most profitable of the railroad investments. The Press says:

"We obtained some facts yesterday in conversation with Dr. A. H. Hanchett, of the Copper Falls mine, Lake Superior, which may help our capitalists and business men to decide this question. First, as to the length and cost of the road to be built. With a sectional map before us, allowing for curves, we made the approximate distances, taking the Green Bay route from Milwaukee, as follows:

	Miles.
Milwaukee to Green Bay.....	110
Green Bay to a point on the Escanawba River, several miles below its mouth.....	150
Thence to Carp River Iron Mines.....	30
Carp River to Copper Range, near the head of Keweenaw Bay.....	50
	340

Thence a railroad thirty miles west would reach the Minnesota mine, and fifty miles north-east take in almost the entire copper range of Keweenaw point. But it requires the building of only about three hundred and forty miles of railroad to bring us into direct communication with the rich iron and copper regions of Lake Superior.

The cost of the road is the next important item. There is no mountainous country on the route indicated. Much of it is covered with a dense forest, which would contribute greatly to the business of the road. If we mistake not, our Illinois roads cost on an average about \$25,000 per mile. While some of the items in the cost on the Lake Superior road might be more than those in Illinois, others would be much less. Lumber, for instance, would not cost half what it does in Illinois; but suppose, in order to be safe, we call the entire cost of building and equipping the road \$30,000 per mile, this would make the total capital necessary \$10,200,000. Let us see whether the road would probably yield fair dividends on this large amount of money.

Dr. Hanchett could give us no facts in reference to the productiveness of iron mines on and about Carp River. Both the excel-

lent quality of the iron and the immense extent of the mines would lead to the conclusion that they would afford a very large and profitable business.

With the copper mines he is much better acquainted. According to his remembrance of the figures, the Minnesota and Cliff mines are producing a hundred tons of copper per month, worth \$600 per ton. This would give the products of each of these mines at \$750,000 per year. Dr. Hanchett thinks there are from twelve to fifteen mines which either are now or very soon will be put on a paying basis. Of course it is not pretended that all or even a majority of this copper would come to Chicago by railroad; but we merely mention these facts to show the extent of the business the mines are doing. It is, however, worthy of inquiry whether the mines could not afford to pay the difference of freights for the products of the early part of the winter, rather than lose the interest on their value till navigation should open in the spring. Then again there might be such a difference in the market as to warrant shipments.

The main business on which the road would rely for support, would be derived from passengers and supplies for the mines and lumber freights. In the summer season there would be an immense travel to Lake Superior. In the winter also it would be very considerable. There can be no doubt that the road would get an immense amount of business during the entire year, in the way of furnishing the miners with provisions and other supplies. Now they are obliged to purchase them very early in the season, and before the Saut Ste. Marie Canal was completed, they were obliged to give their orders on the first of June. The pork, beef and many other articles were the products of the previous year, and even now it will not be much better. Miners have a taste for fresh food as well as others, and had we a railroad to Lake Superior on which they could rely, they would undoubtedly have most of their provisions shipped over it.

Both Dr. Hanchett and Mr. Neagle, to whom we were indebted a few days since for important facts, assure us that the total importations of provisions and supplies for the mines alone are from one and a half to two millions of dollars. With the rapid settlement and development of the country, these importations will doubtless double every two or three years for some time to come.

While the freight business to Lake Superior would be very large, the cars would have all the return freight in lumber they could bring for the next five or six years. By that time the settlement of the country would supply other freight in place of the lumber. In fact, we have scarcely any doubt that a survey of the route, and a careful estimate of the business which the road would be sure to command, would show that it would be a paying investment.

MARIETTA RAILROAD.—The work on our road is nearly completed to Athens, and we learn the Directors, decided, at their late meeting, to resume work between here and Athens in a week or two—as soon as things could be made ready. Harvest is now about over, provisions and horse feed are plenty and cheap, and there will be no scarcity of laborers. We hope it will be pushed vigorously to completion.—*Marietta Republican*.

**STATEMENT OF THE METROPOLITAN FIRE INSURANCE COMPANY,** of the city of New York, filed in the office of the Auditor of the State of Ohio, in conformity with an act of the Ohio Legislature, passed 1st of May, 1854, to regulate the agencies of Insurance Companies not incorporated by the State of Ohio.

- First. The name of the company is "The Metropolitan Fire Insurance Company."
- Second. The amount of capital subscribed is..... \$300,000 00
- Third. The whole amount is paid up in cash.
- Fourth. The assets of the Company are as follows:
1. Cash on hand,..... \$19,420 98  
In hands of agents, say..... 500 00
  2. Real Estate. None.
  3. Bonds held by the Company. None but those secured by mortgage.
  4. Debts secured by mortgage, 286,847 92
  5. Debts secured by pledge of Bank Stock,..... 3,400 00
  6. Debts for Premiums,..... 3,261 72
  7. Other securities. None.
- Fifth. No debts are due to Banks or to any other creditors of the Company, except a few small bills on account of expenses, say \$600.
- Sixth. No loss is adjusted and due.
- Seventh. No loss is adjusted and not due.
- Eighth. Losses unadjusted—one claim of \$1250.
- Ninth. No loss in suspense, except above.
- Tenth. No other claims against the Company.
- Eleventh. The greatest amount insured by this Company, in any one risk, is \$10,000, except in one instance, where risks to the amount of \$15,000 are taken.
- Twelfth. No limit is fixed upon the amount insured in any one city, town or village.
- Thirteenth. No limit is fixed upon the amount insured in one block. In both these cases the amount is left to be determined by the circumstances, under stringent rules as to the quality and relative situation of the risks assumed.
- Fourteenth. The Charter of this Company is formed under the general Insurance Law of the State of New York and a copy thereof is on file in the office of the Auditor of State of the State of Ohio, together with the act of the Legislature of New York amending said Charter, passed January 31, 1853.

STATE OF NEW YORK,  
City and County of New York, } ss.  
On the twenty-fifth day of July, 1855, before me personally appeared James L. Graham, to me known to be the President, and Edward A. Stansbury, to me known to be the Secretary of the Metropolitan Fire Insurance Company, in the city of New York, who being by me duly sworn, did depose and say, each for himself, that the foregoing statement of the affairs of said Company, as the same were on the first day of July instant is true, and that the copy of the Charter and accompanying proceedings on the organization of said Company, appended to the statement filed by this Company in the Auditor's office of the State of Ohio, in March last, is a true copy thereof, and that said Charter and proceedings are in conformity to the laws of the State of New York, and that said Charter remains in full force without alteration.

JAMES LORIMER GRAHAM, PRESIDENT.  
EDWARD A. STANSBURY, SECRETARY.  
Sworn and subscribed before me, this twenty-fifth day of July, A.D., 1855.

[SEAL.] MOSES B. MACLAY,  
A Commissioner of Deeds for the State of Ohio.

**CERTIFICATE (ORIGINAL) OF AUTHORITY.**  
To expire the 31st day of January, 1856.  
STATE OF OHIO,  
Auditor of State's Office,  
COLUMBUS, July 31st, 1855.

WHEREAS, The METROPOLITAN FIRE INSURANCE COMPANY, located at New York City in the State of New York has filed in this office a sworn statement of its condition as required by the first section of the "Act to regulate the agencies of Insurance Companies not incorporated by the state of Ohio," passed May 1, 1854:

AND WHEREAS, said Company has furnished the undersigned satisfactory evidence that it is possessed of at least one hundred thousand dollars of actual capital invested in stocks of at least par value or in bonds or mortgages of unincumbered real estate worth double the amount for which the same is mortgaged:

AND WHEREAS, said company has filed in this office a written instrument under its corporate seal, signed by the President and Secretary thereof, nominating and appointing LEMUEL A. OSTROM of Cincinnati its agent for the transaction of the business of Fire Insurance, and fully and unreservedly authorizing him to acknowledge service of process for and on behalf of said Company consenting that service of process upon him, the said agent, shall be taken and held to be as valid as if served upon the Company according to the laws of this State or of any other State, and waiving all claim of error by reason of such service.

NOW WHEREFORE, In pursuance of the first section of the "Act to regulate the Agencies of Insurance Companies not incorporated by the State of Ohio," passed May 1, 1854, I, WILLIAM D. MORGAN, Auditor of said State, do hereby certify that the said LEMUEL A. OSTROM is authorized as an Agent for the said Company, to transact the business of Fire Insurance in this State,



until the thirty-first day of January, in the year one thousand eight hundred and fifty-six, so far as he may be legally empowered so to do by his letter of appointment and the instructions which may be given to him by the said Company.

IN WITNESS WHEREOF, I have hereunto subscribed my name, and caused the seal of my office to be affixed this 31st day of July, in the year of our Lord one thousand eight hundred and fifty-five.

aug16 W. D. MORGAN, AUDITOR.

### Insurance Agency.

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

DWELLINGS, STORES, WAREHOUSES,  
and their contents,  
STEAMBOATS, BARGES,  
and their Cargos,

Manufacturing Establishments,

Railroad Depots and Station Houses,

at current rates. L. A. OSTROM,  
Aug. 16. No. 6 West Third Street, Cincinnati.

## SCHENECTADY Locomotive Works,

SCHENECTADY, N. Y.

THESE WORKS HAVING BEEN ENLARGED and improved, and having received extensive additions to their tools and machinery, are prepared to receive and execute orders for

LOCOMOTIVE ENGINES,  
AND TENDERS, AND  
RAILROAD MACHINERY

generally, with the utmost promptness and despatch, and in the best style.

The above works being located on the New York Central Railroad, near the center of the state, possess superior facilities for forwarding their work to any part of the country, without delay.

JOHN ELLIS, Agent.

WALTER McQUEEN, Sup't. Au16.1y.

### Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

### RAILROAD IRON.

1,000 TONS best quality Welch Rails, "Erie" Pattern, 59 lbs. per yard, to arrive, due here in fifteen days. Apply to  
VOSE, LIVINGSTON & CO.,  
New York, Aug. 16th, 1855. 9 South William st.

MIDDLETON, WALLACE & CO.,  
LITHOGRAPHERS & ENGRAVERS,  
No 115 Walnut St., Cincinnati.

RAILROAD BONDS AND CERTIFICATES OF STOCK  
Beautifully executed and at moderate rates.

Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.

Engraved in all styles and on short notice.

### GAS.

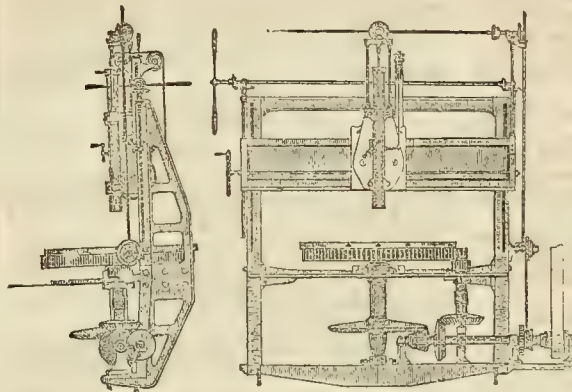
AUBIN'S PATENT.—We are agents for this new and improved furnace, and having had one in operation at our office for several months past, can confidently recommend it as being simple in its operation, occupying little room and furnishing a pure and beautiful burning gas. From the peculiar arrangement of the retort it is not liable to burn out, thus saving a great part of the expensive repairs of other furnaces. We are prepared to erect these furnaces at our own risk and warrant them to produce good gas.

T. WRIGHTSON & CO.,  
167 Walnut-st., Cin'ti.

# NILES' WORKS.

## FOUNDERS AND MACHINISTS,

EAST FRONT STREET, CINCINNATI,



Manufacturers of

TYRE LATHES,

(of the most approved plan.)

HORIZONTAL

FACE PLATE LATHES,

OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

PLANING MACHINES

LARGE & SMALL.

## MARINE & STATIONARY ENGINES.

BOILERS OF EVERY DESCRIPTION.

## HEAVY FORGINGS,

IRON AND BRASS CASTINGS, &c., &c.

## BANCROFT & SELLERS,

16th Street and Pennsylvania Avenue,

PHILADELPHIA, PA.,

Manufacture, in addition to their well known class of

ENGINEERS' & MACHINISTS' TOOLS,

SHAFTING, GEARING,

PULLEYS, COUPLINGS,

AND

BANCROFT'S PATENT SELF-ADJUSTING

HANGERS & PEDESTALS;

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

CAST IRON TURN-TABLES,

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

PARRY'S PATENT

Anti-Friction Pivot Box.

— ALSO —

TRANSFER AND DROP TABLES,

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.



MATHEMATICAL INSTRUMENTS.

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

Surveyors' & Engineers' Instruments, Theodolites, Transits,

Levels, &c.,

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

## LOCOMOTIVES FOR SALE.

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

Alexandria, Va.

FOR SALE.—Six Coal Burning Freight Engines, 29 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, THATCHER PERKINS, Pres dent.

Also, for sale, two Twenty Horse Power Stationary Engines.  
Aug. 9 4t

## THE SCHENCK MACHINERY DEPOT

AND

Leather Banding Manufactory,

No. 163 GREENWICH STREET,  
NEW-YORK,

KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

Oak-tanned Leather Belting,

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR.

Aug. 9 1y

D. D. MILLER,

Manufacturer of

LOCOMOTIVE, RAILROAD AND HAND

LANTERNS,

190 Water Street, New York.



**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

**T. WRIGHTSON & CO.,**

Railroad Record Office, 167 Walnut St. Cin.

**Myers Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

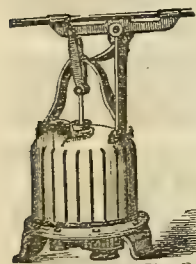
172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—ly

**IRON BOILER FLUES.****PASCAL IRON WORKS.****MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.

**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Grainger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly CASH.

R. L. OWEN, Chief Engineer.

Aug. 2, 1855.

aug2 12w

**THE KENTUCKY MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned,

P. DUDLEY,  
President of the Board.

July 26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted), each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.60 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

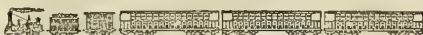
The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 24½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

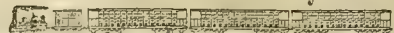
TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 29, 1855.

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M. & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Supt.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis, St. Louis, Chicago, Galena & Rock Island, BY THE WAY OF THE CINCINNATI, HAMILTON & DAYTON, AND EATON & HAMILTON R. R.**

TO CHICAGO, in ..... 15 HOURS.

TO ST. LOUIS, in ..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

**THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.**

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indiana, and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

M. L. MITCHELL, Agent.

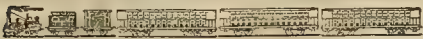
The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

Feb. 8-ly

D. M. MORROW, Superintendent



**Baltimore & Ohio Railroad.**

**380 MILES BETWEEN WHEELING AND BALTIMORE.**

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from All Parts of the West,**

ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

**AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED**

**For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**  
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 8† Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



**ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:**

**FOR LOUISVILLE**—At 8.30 A. M., and 3.45 P. M.

**FOR INDIANAPOLIS**—At 6.45 A. M. and at 4 P. M.

**FOR LAWRENCEBURG AND AURORA**—At 8.30 A. M., 3.45 P. M., and 6 P. M.

**Freight**—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4. East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co.

S. S. POST,  
Chief Engineer and Superintendent.

Omnibusses run from the principal hotels, and call on orders left at the Ticket Offices.

Omnibusses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

## STEREOTYPE FOUNDRY, AND AGENCY OF L. JOHNSON & CO.'S TYPE FOUNDRY.

**C. F. O'DRISCOLL**, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of **STEREOTYPING**,

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order **PRINTING MATERIALS** of every kind.

**AT THE FOUNDRY PRICES.**  
**C. F. O'DRISCOLL,**  
168 1-2 Vine Street, Cincinnati, O.

## 1855. New Arrangement, 185 5 COMMENCING MONDAY, JULY 16.



## LITTLE MIAMI RAILROAD, VIA COLUMBUS.

**FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.**

*The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.*

Laid with HEAVY TIRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy Tiron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.  
CLEVELAND TO CINCINNATI in 8½ hours.

**Time via Little Miami Route from Cincinnati to**

To Columbus in.....	3¾ hours.
To Cleveland in.....	8½ "
To Dunkirk in.....	14½ "
To Buffalo in.....	16 "
To Albany in.....	26 "
To New York in.....	30¾ "
To Boston in.....	35 "
To Crestline in.....	6 "
To Pittsburg in.....	14 "
To Philadelphia in.....	30¾ "
To Wheeling in.....	10 "
To Baltimore in.....	26½ "
To Washington in.....	29 "
To Steubenville in.....	12 "

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

### FIVE DAILY TRAINS.

**FIRST TRAIN**—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburg, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

**SECOND TRAIN**—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

**THIRD TRAIN**—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

**FOURTH TRAIN**—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

**FIFTH TRAIN**—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburg, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

### THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami) Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

### THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## PERU & INDIANAPOLIS R. R.



*Peru, Logansport, Wabash, Rochester, and Indianapolis.*

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent

Indianapolis, March 22, 1855.

### Covington and Lexington Railroad.

**OPEN** to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Falmouth, Cullerville, Boyd's, Berry's, Robinson's, Garnett's, Cynthiana, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M.; stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

### RATES OF FARE.

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthiana.....	2 00

### FOR THROUGH TICKETS,

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,

Superintendent.  
The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices oct. 17\* CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

### VIA LAWRENCEBURG.

**IN** connection with the **Ohio and Mississippi Railroad**. Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and Lafayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West, for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,

Cincinnati, June 12, 1855.

Agent.

## W. G. ATKINSON,

Civil Engineer, Surveyor & Draftsman,  
CUMBERLAND, MD.

**RAILROAD** routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared. mari-ly



## NOTICE TO CONTRACTORS.

PROPOSALS will be received at the office of the Henderson and Nashville Railroad Company in Madisonville, Kentucky, until the first Monday in October next, for the grubbing, clearing, grading and masonry of said road, or any part thereof. The work will be divided into convenient sections to suit bidders, of not less than half a mile. Proposals will be opened at the city of Henderson, on the said first Monday in October, at which time and place the Board of Directors will meet for that purpose.

E. G. SEBREE, Prest.  
Chas. Seymour, Chief Engineer.  
August, 18th, 1855. 5w

## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.

LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNY & PECK,  
Louisville, Ky.

## Norris' Locomotive Works,



PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

LOCOMOTIVES OF SUPERIOR QUALITY.

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

## A. L. ARCHAMBAULT'S

PORTABLE STEAM

## HOISTING & PUMPING ENGINES;

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,  
S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

## Mercurial Steam Guages.

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

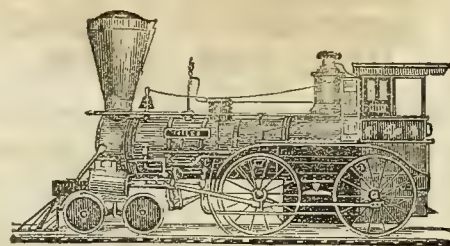
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DERAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

## LOCOMOTIVE WORKS.



## NILES & CO.,

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855 6m.

## Lightner's Patent Axle Boxes for Railroad Cars.

The attention of Railroad Managers and others is called to this valuable improvement in  
AXLE BOXES.

The first cost and "fitting up" of these boxes is 20 to 25 percent, below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

## ENGINEERS' & SURVEYORS' INSTRUMENTS.

JAMES FOSTER, JR.,

SOUTH WEST CORNER OF FIFTH & RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th, 1853. mar1-tf

G. ESCOL SELLERS.....C. D. DANA

SELLERS & DANA,

AGENCY FOR THE SALE OF

Railroad Materials and Machinery.

THIRD STREET, (west of Burnet House.)

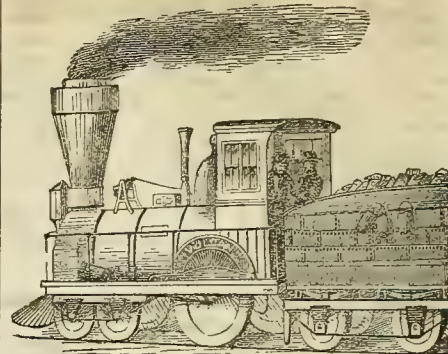
CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—  
Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. Jy13.

## Cincinnati Locomotive Works!



The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 MOORE & RICHARDSON.

WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. & F. Wason, Springfield, Mass. 20

## Railroad Car Findings.

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fitted Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

LOCOMOTIVE ENGINE LANTERNS, From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

Cotton Duck for Car Covering,

Of any required width to 124 inches.

ENAMELLED HEAD LININGS Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers,

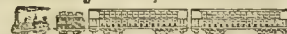
Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass. 1006

## CAR MANUFACTORY,

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shop are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 36 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

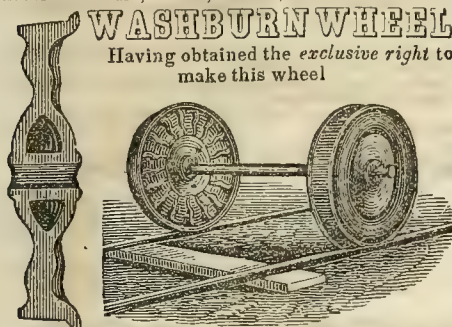
They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan. 24th, 1853. Jan. 25-t



**FULTON CAR WORKS,**

CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

**WASHBURN WHEEL**

Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

**DAVENPORT, RUSSELL & CO.,****Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16th\* **JOSEPH DAVENPORT.**

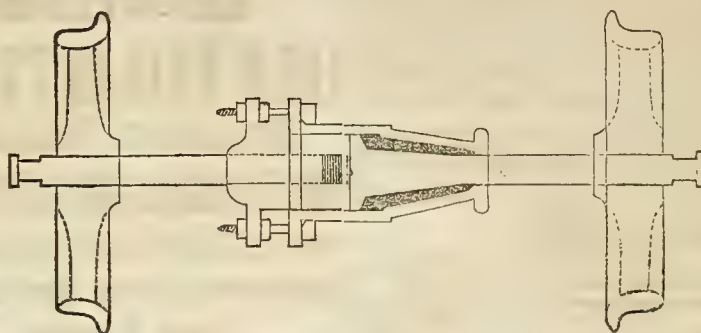
**S. C. THOMSON & CO.,**

MANUFACTURERS OF

**PATENT PAD LOCKS,**

For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,

Cor. Railroad Avenue and Market st.,  
n.12j **NEWARK, N. J.**

**DENNEY'S DIVIDED CAR AXLE.****PATENTED JANUARY 31ST, 1854.**

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

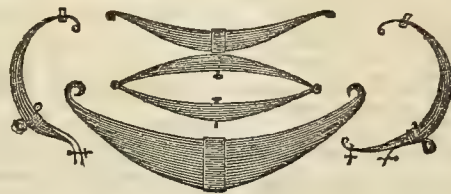
**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**

Gap, Pa.

Jy10†

**MCDANIEL & HORNER,****LOCO-  
MOTIVE****AND CAR  
SPRING****MANUFACTURERS, WILMINGTON, DEL.**

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

**References.****NORRIS BROTHERS, Locomotive Builders, Philad.****A. C. GRAY, Prest. New Castle Manuf. Co.****U. WELLS, R. R. Car Manuf. Petersburg, Va.****I. R. TRIMBLE, Supt. Philad. R.R. Co.**

May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga****EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.****THOMAS DOUGHERTY, Master Mach. do.****THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va****DURYEE & FORSYTH'S****PATENT****PLATFORM SCALES.**

WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

Rec27

**HEWSON & HOLMES,**  
83 and 85 Walnut Street.**THOS. M. CASH,****PHILADELPHIA RAILWAY AGENCY.**

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

**REFERENCES.****Richard Norris & Son, Locomotive Builders, Philad'a,****Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "****Charles H. Fisher, Esq., "****Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S. C****Finckney Huger, Esq., Pres't N. E. R. R. Co.**

Oct. 13-1f.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to  
JOHN RICE & CO., Patentees.  
90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.  
OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structure.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, Jr.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,  
H. J. LOMBARD, Superintendent.  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Baucroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,  
Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Baucroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,  
STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents.

TUBE EXPANDERS, FOUR-CUTTER AND  
CHAMBERING DRILLS,  
Countersinks, Cutting Bars and Pall-  
Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

Artesian Well Tubes  
Screwed Flush inside & outside.

FREE-JOINT TUBES  
For Core Bars, Awn-  
ings, Railings,  
Leaders, &c., &c.  
PATENTED

HOLLOW SLAB WATER TUYERES,  
For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES,

For Railway Wheels. Railway Axles and Springs,  
SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

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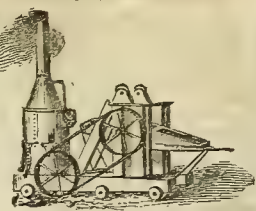
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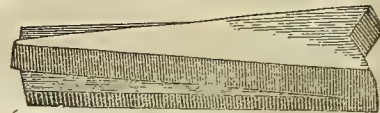


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of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

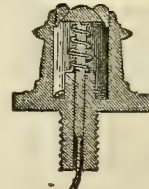
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

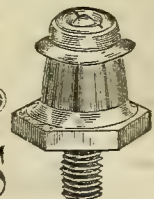
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# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING,.....AUGUST 10, 1855.

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# Railroad Record

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VOL. III.—No. 27.

## THE AGRICULTURE AND PRODUCTION OF THE STATE OF OHIO.

The State Fair of Ohio will soon be held. It is an occasion which calls forth thousands of persons, and involves the interests of the entire State, and of a large part of the United States. Indeed, if the subject is fairly considered, it extends to Europe, and even to the Islands of the Pacific. For the products of Ohio soil are consumed, in large quantities, in England, France, the West Indies, the shores of Oregon, the Sandwich Islands, and for Australia. The world is concerned in the production of Ohio, and may well regard its harvests with interest. Under these circumstances, we propose to consider briefly the Agricultural production of Ohio. We have usually done so once or twice a year, that we may give some idea of one great source of profit to Ohio Railways—a source of profit which will be very much enlarged during the coming season.

Ohio is now the first Agricultural State in the Union, and the determination of her crops goes far to determine the problem for the whole country. We have accounts now from every part of the State, which enables us to judge very nearly what relation the present crop has to what may be called an *average* crop. The wheat, oats, potatoes, barley, rye, and hay are all harvested or safe. We presume that the corn will have heat enough to ripen it—a point not yet altogether settled—though we may assume it, with tolerable assurance. Corn is a crop which requires a hot season to ripen. It has so far come forward most exuberantly, and the ears are ripe, but they are not hardened, and that requires warm weather yet. We assume, however, that the corn crop will be what it promises to be, a very abundant crop.

Premising these remarks, we may safely say, that wheat and small grains are twenty per cent. above an average; that potatoes are thirty per cent. above, and corn 25 per cent. We know that these results will seem large, but we also know that all the facts within our knowledge and observation, tend to confirm them. In order to establish with some degree of certainty, the quantity and value of crops in Ohio, the present year, we present the following table of *average* crops, as deduced from the returns of the Assessors, the Census of the United States, and the Reports of the State Board of Agriculture.

### AVERAGE CROP OF THE LAST FIVE YEARS.

	Acres in Crop.	Bushels Produced.
Corn.....	1,717,854.....	61,182,338 bush.
Wheat.....	1,730,252.....	23,840,654 “
Oats and Rye.....	700,000.....	14,000,000 “
Potatoes.....	100,000.....	6,000,000 “
Hay.....	1,100,000.....	1,600,000 Tons
Barley, Buckwheat and Clover Seed.....	100,000.....	1,150,000 bush.

It will be seen that the above aggregate presents 5,348,106 acres of *arable* land—while the census gives us of *improved* lands 9,851,493

acres. Of the remaining 4,500,000 acres, not embraced in the arable lands, about 3,000,000 of acres are *pasturage*, on which are grazed more than five millions of sheep, a million of cattle, half a million of horses, etc. The residue will be fully made up by the orchards, gardens, roads, fenced wood-lands, etc., all of which are included in the general head of *improved* lands. There are probably from 250,000 to 300,000 acres in *roads* alone.

We have formed the above *averages* on four successive crops, viz: those of 1849, 1850, 1851, and 1852, which all will admit to be a very fair average. Before we state the amounts of the several crops this year, we shall advert to the natural *compensations* of production. Hence, the year 1849 gave the *poorest* crop of wheat we ever had; but the year 1850 afforded the *best* crop we ever had, so that, curious enough, the average of these two years, viz: 23,000,000 of bushels, was just about the general average of the last six years, that is, a fair average crop. The crops of 1852 and 1853 were about an average; but the crop of 1854 was a very poor one, while the crop of 1855 is a very good one. Hence nature has compensations, and in the long run, the farmer is sure that seed time and harvest will return in due proportion.

So of the corn crop. This may be said to be our only *sure* crop. It never entirely fails and it varies less than any other. But it is so very heavy an article in the production of the country, that even a partial failure tells heavily on the grain markets of this country. Last year the failure was about twenty per cent. of an average crop, and this year (if there be sun enough to ripen and harden it,) there will be, at least, 25 per cent. *above* an average crop. The average being 61,000,000, the crop of last year (in Ohio) was not more than 45,800,000 bushels. This year it will be 75,200,000 bushels! The advance on last year's crop in this state, will not be less than thirty millions of bushels!

Making now the estimates for each crop on the per cent. of increase above the average, we have this result:

	Average.	Crop of 1855.
Corn.....	61,182,338 bush.....	76,477,500 bush.
Wheat.....	23,840,654 “.....	28,610,654 “
Oats and Rye.....	14,000,000 “.....	16,800,000 “
Potatoes.....	6,000,000 “.....	7,800,000 “
Hay.....	1,600,000 tons.....	2,000,000 tons.
Barley, Buckwheat, and Clover Seed...	1,110,000 bush....	1,360,000 bush.

This result is equivalent to full *sixty millions of grain, and half a million of tons of hay greater than the production of last year.* As this is all a *surplus*, and as a surplus will be carried to outside markets, making so much additional freights for railways. Nor, is this all. The abundant production furnishes nearly as much domestic or way freight, in carrying back merchandise, iron, coal, etc., in exchange for the products of the farmer. In



Ohio alone we estimate that at least *four millions of tons of freight* will be furnished railways in the current year from August 1st, 1855, to August 1st, 1856, above what was furnished in the year preceding.

In the estimate of *money value* to the farmer, it may be said that the market price will be lowered in proportion. This is not true. It will be lower certainly, but not in proportion. There is an immense *vacuum* to supply, and a *foreign war*. No one need expect very low prices. Prices will rule above the average heretofore.

But, if the price were correspondingly low, the *profit* to the farmer and the state is not made on the whole crop, but on the *surplus* crop only. Money is to be got only for what one can afford to *sell*. Last year there was very little surplus. This year the surplus is immense. Putting the surplus of 1855 at a low price, let us see what it comes to :

Surplus Corn at 40 cts....	40,000,000 bush....	\$16,000,000
" Wheat at \$1 10....	16,000,000 " ....	17,600,000
" Oats at 30 cts....	5,000,000 " ....	1,500,000
" Potatoes at 20 cts....	1,000,000 " ....	200,000
" Hay at \$8.....	200,000 tons....	1,600,000
" Clover Seed at \$3	150,000 bush....	450,000
Aggregate.....		\$37,350,000

This is the amount of surplus for *crops* only; but crops are not the only surplus produce. We must take all the animal product which is not produced from grain. Of these, we have as the result of pasturage :

Wool at 30 cents, 10,000,000 lbs.....	\$3,000,000
Cheese and Butter.....	1,500,000
Cattle, at half price, 100,000.....	4,000,000
Aggregate.....	\$8,500,000

We have assumed that *all* the hogs, and *half* the cattle are the result of *grain feeding*, and, therefore, excluded them as being included under the head of grain. But to this last item we must add the whole cost of *manufactured* beef and pork, which is the export of *labor, salt and barrels*, and this amounts to several millions of dollars. The surplus of Mines and Manufactures we are not now considering; but as the agricultural surplus amounts to *forty-six millions*, we may assume that the **AGGREGATE SURPLUS** of the State of Ohio for the year 1855, will amount to the full sum of **SIXTY MILLIONS OF DOLLARS**—a sum far beyond the value of surplus in any other year. The value of the corn crop, however, is given with this reserve that it may possibly be greatly injured by the continuance of wet and cold weather. This, however, is not probable; and we have assumed the surplus which will undoubtedly exist, if the corn fully matures.

With this crop Ohio needs nothing, but a more enlarged and liberal Banking System to enable it to realize the full benefits which flow from solid and abundant wealth. Her Metropolitan City—Cincinnati—if treated by the Legislature with the least justice, will

grow and prosper as no other city ever has done. All she needs are the common financial facilities for the transfer of property and credit.

#### MANUFACTURE OF RAILROAD CHAIRS.

Railroad chairs require to be made of the best material, and are generally wanted of a special pattern, adapted to the rail purchased, and on very short notice. These facts together with another—that nearly all the chair manufactories are on the seaboard and the Hudson, far away from the points where most of the chairs are now used, often cause serious delays in getting chairs on the ground in time. These delays are a great inconvenience to companies, who cannot proceed to lay their track as anticipated, and hence cannot open their road according to promise. The frequent occurrence of these things has suggested to some enterprising western men, the propriety of establishing a chair factory at Buffalo, Pittsburg, Cleveland, Chicago, Cincinnati or St. Louis. We think the idea a good one, and we do not see why such an establishment should not be able to furnish chairs cheaper as well as better and more promptly than eastern establishments, as they have the pick of both the iron and the market right at their own doors.

While on the subject, we will just add, that we observe among our advertisements to day, one of a good chair machine, and the right to use it, exclusively, in this country, for sale low. It occurs to us that the opportunity is an excellent one for those who are desirous of embarking in such an enterprise. A western factory would save two transportations and several days time, besides possessing the advantage of being able to procure the very best of iron direct from the mines.—*R. R. Journ.*

We would just say to the Journal that Railroad chairs are made extensively in *our* city and that new establishments for this species of manufacture have been for a long time in contemplation. There is, we believe, an establishment also in St. Louis. The difficulty is, that either these establishments do not advertise, or the editor of the Journal does not read the advertisements in other papers than his own.

Western chairs are deservedly known as the best chairs manufactured in the country; and the machine by which they are made, makes them both well and cheaply.

#### BALTIMORE AND OHIO RAILROAD—TRACK OVER THE KINGWOOD TUNNEL.

The Baltimore and Ohio Railroad, have just completed the independent track over the ridge through which the Kingwood Tunnel is made. The frequent interruptions to the work of arching the tunnel, rendered this a matter of prudence and necessity.

The track over the mountain is about *two and one quarter miles long*, and the maximum grade observed is five and seven-tenth feet in a hundred. The transit over these  $2\frac{1}{4}$  miles, is made in fifteen minutes in spite of the heavy grades. The whole of this road was graded and the iron laid in twelve days.

## Railroads.

### INDIANAPOLIS AND CINCINNATI RAILROAD; SEMI-ANNUAL REPORT.

We have received the Semi-Annual report of this road for the six months ending July 1, 1855.

"This Company was organized in August, 1848, under a special charter, obtained during the preceding February, and the construction of the road prosecuted under various adverse circumstances, by the late, and lamented, George H. Dunn, as President, until about the first of December, 1853, when the entire line from Indianapolis to Lawrenceburg was opened for transportation.

"Although it has always been conceded, that the main value of the road depended upon its extension to Cincinnati, its appropriate terminus, yet the generally deranged condition of the finances of the country, for the last year, has prevented the Board from taking any decisive action towards the construction of an independent track beyond Lawrenceburg.

"The road has been opened for transportation about eighteen months; during the first six months, freight and passengers were conveyed between Lawrenceburg and Cincinnati by Boats, until the completion of that part of the Ohio and Mississippi road enabled us to transfer passengers to and from their cars; but in consequence of a difference in the gauge of the tracks of the two roads, we have been compelled, until very recently, to continue to transport the freight by the River.

"The obstacles to the business of the road, consequent upon a transshipment at Lawrenceburg either between other cars or boats, and the unavoidable delay, damage, and cost of handling property, induced the Board to propose an arrangement with the Ohio and Mississippi Road, for a *third* rail, on that part of their track between Lawrenceburg and Cincinnati. Accordingly, a contract was concluded on the 19th of March last, between the two companies, on terms fair and equitable to both, giving to our company the right to lay down a third rail, and use the track thus provided, between Lawrenceburg and Cincinnati. By this arrangement, an unbroken extension of our line is secured to Cincinnati, with all the necessary Depot accommodations, at a central and desirable location in the city."

The following is the statement of the receipts and expenditure of the company during the past six months :

*Transportation Receipts and Expenses for six months ending June 30th, 1855.*

RECEIPTS.	
Passenger.....	\$88,287 11
Freight.....	81,720 63
Express.....	2,265 00
Mail.....	4,172 84
	\$176,445 00



## EXPENDITURES.

Repairs, Road.....	\$16,073 86
Repairs, Water Stations.....	513 36
Pumping water and sawing wood.....	2,200 00
Oil and Waste.....	888 27
Repairs Depots, etc.....	731 43
Fuel consumed.....	7,000 00
Union Depot Expenses.....	700 00
Repair of Bridges.....	1,036 64
Repair of Passenger Cars.....	2,945 66
Repair of Freight Cars.....	3,247 13
Repair of Gravel Cars.....	625 37
Repair of Engines.....	8,193 80
Repair of Wharf Boat.....	77 11
Passenger Expense.....	7,587 42
Freight Expense.....	14,980 39
Mail Expense.....	140 32
Printing and Advertising.....	2,040 80
Officers' Salaries.....	6,370 89
Injury to Persons.....	45 80
Stock Killed.....	2,170 85
Lost and Damaged goods.....	805 40
Office Expenses.....	413 25
General Expense.....	1,223 46
Profit and Loss.....	242 90

\$ 80,218 10

\$96,227 10

Deducting from net receipts the total interest for six months, \$42,290 00, leaves applicable to dividends \$53,937 50, being about four and three-eighths per cent. on the capital stock.

The general account of the company is as follows :

*Indianapolis and Cincinnati Railroad Company in General Account.*

1855.	Dr.
July 1, Construction, including Union Depot and Track.....	\$1,888,006 05
" Construction, Interest paid on capital stock.....	99,403 93
" Equipment.....	\$1,987,409 98
" Third Rail.....	351,128 26
" Wood and Material on hand.....	54,058 24
" Real Estate unsold.....	20,348 98
" City Lawrenceburg Bonds unsold.....	291,228 04
" Bills Receivable.....	750 00
" Sundry Accounts.....	100,383 41
" Treasurer, Cash on hand and Deposited to pay Interest.....	944 19
" Balance, interest and taxes.....	46,115 84
" Real Estate.....	\$10,442 70
" Transportation Expenses, six months of 1855.....	80,218 10
" Interest paid on bonds.....	22,947 95
	113,608 75
	\$2,965,975 69
1855.	Cr.
Ten per ct. special bonds.....	\$12,000 00
Ten per cent. Domestic Bonds.....	84,200 00
Ten per cent. Real Estate Bonds.....	200,000 00
Ten per ct. Convertible Bonds.....	100,000 00
Seven per cent. 1st Mortgage Bonds.....	500,000 00
Seven per cent. 2d Mortgage Bonds.....	363,000 00
Seven per cent. Income Bonds.....	8,000 00
Dividend Bonds 1854.....	70,000 00
	\$1,337,200 00
Remainder transportation account for dividend 1854.....	12,830 30
Bills payable.....	213,165 64
Transportation repts for six months of 1855.....	176,445 60
Capital Stock.....	1,226,334 15
	\$2,965,975 69

At a meeting of the Board on August 3d, it was ordered that a dividend of four per cent. be declared on the capital stock of the company, and that this dividend be payable in stock. It was also ordered that the bonds and certificates already issued or that may be issued for dividend for 1854, may be made convertible into capital stock of the company at the option of the holder.

OHIO & MISSISSIPPI RAILROAD.—EAST END. The full subscription to the new loan to this road has been taken.

## SPARTANBURG AND UNION RAILROAD.

The Fourth Annual Meeting of the Stockholders of this road was held at Spartanburg on Aug. 8th and 9th. The Spartanburg and Union Railroad extends from Ashville, on the North Carolina Central, to Alston on the Greenville and Columbia Railroad. It is, as will be seen by reference to the map, a portion of the direct line from Charleston, S. C., to Cincinnati. Our readers will find the principal features of this great route to the South in the issue of the *Record* for July 26th. The president of the Spartanburg and Union Railroad, in his report, makes the following statement with regard to the whole line :

"I am unwilling to close this report, without recurring to a subject of great importance to your Company and the State. Since your last meeting the General Assembly of North Carolina granted a charter to the Greenville and French Broad Railroad Company, authorizing the construction of a Railroad from the Tennessee line at Paint Rock, via. the valley of the French Broad, Ashville and Hendersonville, to the South Carolina line. This is the last link in the great Railroad chain extending from Cincinnati to Charleston. Every mile of this line is now under charter. The locomotive passes daily over very nearly one-half of the distance between its *termini*, while other important sections are soon to be under contract, with ample means for speedy completion."

The report before us is principally occupied in detailing some of the obstacles and difficulties that the company have been compelled to encounter during the past year. They may be briefly summed up thus. The monetary and commercial crisis of the year has caused the work to proceed more slowly than was originally designed. This was necessary to save sacrifices in negotiating the bonds of the State and Company, and to prevent frittering away the means that should be applicable to the building of the road, instead of feeling brokers, or pandering to a temporary commercial pressure. Second, the work has been rendered somewhat more expensive from the necessity of making higher embankments than was contemplated. The force under employ has varied during the year from 30 or 40 hands to 100, then to 60 and again to 30 or 40. The President remarks: "But, notwithstanding these manifold evils, sixteen miles of the superstructure, including side-tracks, are erected and in operation. In this distance, three bridges, to wit, two of one hundred and thirty feet span each, and one of fifty, are included, and the fourth is now being completed across Beaver creek, near Lyle's Ford, and five miles from Shelton's Ferry, where your road crosses Broad River. The masonry for the Bridges over that stream is finished, and ready to receive the superstructure."

"Five out of seven of the spans of the latter, are ready to go up, and the other two will be ready, as soon as they are needed. The architect will commence erecting the superstructure in a short time, and by the first of December, the train may be expected to pass to the Union District side of the river. If a competent force be kept upon the line, the cars will reach the east bank of the river early in October, and from that point the company will be prepared to receive and transport to market, the crop of the present year."

From the engineer's report we learn that the following distances have been bridged and trestled on the first fifteen miles of the road, viz: 600 feet at Go-down creek (some of this has been filled with the earth taken from Lakins bluff, 200 feet in Mr. Johnson's plantation, 300 feet at Owen's creek, 400 feet in Mr. Alston's plantation and 1200 feet at Terrible creek. The spans of bridging at Go-down, Owens, and Terrible creeks have been erected in such way that stone masonry can be substituted, which should be done, and the road filled in or embanked where it has been trestled before it becomes necessary to replace the timber. As a general thing culverts have been built and a permanent road-bed constructed; some may suppose that it would have been better policy to have followed the custom sometimes adopted of partially building and completing the road, postponing the stone work and substituting wooden structures, and which when put in operation, would scarce be half finished.

The cost of this portion of the road, it is stated, cannot fall short of \$20,000 per mile, including the bridge across the Broad river. A committee who examined the various reports presented to the stockholders, thus report :

"That portion of the road, lying east of Broad River, a section of the first twenty miles, has been found exceedingly difficult and expensive; the cost of which cannot fall short of \$20,000 per mile, including the bridge across the river. This truly serious undertaking may now be regarded as accomplished:—not only done, but well-done; done, we trust, once for all. The whole road may be said to be graded, and the important and expensive structures, in the forms of depots, etc., are under contract and being built. Evidently, therefore, the worst of our labors—the hardest part of our task—the sorest of our burdens are disposed of. The remaining work will be comparatively light, and with anything like adequate means, can be far more speedily accomplished."

The receipts and disbursements of the company during the year, are not given in a clear and distinct manner, but we gather that the cash expenditures have been in all thus far a little short of \$600,000. The debts of the company, in the form of unpaid requisition



and unsettled work, were about \$125,000. There will be required to finish the road about \$400,000. To obtain the balance of this sum beyond the uncollected stock subscriptions, the company have authorised the directors to execute a mortgage on the corporate property of the company, for the purpose of indemnifying private parties who would endorse the obligations of the company, and thus secure the means of continuing the work without sacrificing the company bonds in the market below par. The directors were subsequently empowered, if they deemed it more expedient to issue Coupon Bonds of the Company to the amount of four hundred thousand dollars, and execute the proper mortgage of the whole corporate property to secure the payment and redemption of the same, or so much thereof as they may deem proper; they were authorized to indemnify the private endorsers for the Company, by depositing a sufficient amount of these Bonds in the hands of Trustees for that purpose.

The care thus taken to economize the means of the Company, is highly to be commended, and may be advantageously copied by others. We do not wish to be understood as endorsing the plan of loaning individual credit to a body corporate, it is sometimes attended with serious inconvenience, but we do deprecate the reckless expenditure of means that is sometimes practised and that leaves an incubus upon valuable undertakings, that generations will not remove.

The following gentlemen are the Directors for the ensuing year:

Hon. Daniel Wallace, President.

For Directors.—T. B. Jeter, S. N. Evins, J. Gillam, T. M. Lyles, J. T. Jeter, G. Cannon, J. H. Carson, S. Bobo, Wm. Kirkwood, J. W. Patton, J. L. Young, J. S. Sims.

#### GRAND TRUNK RAILWAY OF CANADA.

A general meeting of the shareholders of this company in England, was held in London on July 24, at which the following statement was made by the Directors:

"The London Board of Directors submit to the Shareholders the following statement of the progress of their undertaking:

"£17 10 per share, and 70 per cent on the Province and Company's bonds of the A series, have been called up. The total amount which has been received on this capital is £2,898,427, of which £464,394 is in advance of future calls. The arrears are £71,247, of which £22,207 are on the last call. The amount yet to be received on the A issue of capital is £683,972.

"The next call of £2 10s per share, and 10 per cent. on each class of bonds, will, in accordance with the terms of the prospectus, be due and payable on Friday, the 12th day of October next.

"The certificates for work in favor of the English and Canadian contractors, for which

the A capital has been raised, amount to £2,888,218. In this sum is included the payment of interest to this date; it forms a deduction from the payments to the contractors as the works progress.

"The sum of £298,500, not originally reckoned upon, which, as already intimated in former reports, was found to be indispensably required for putting the line from Montreal to Portland into effective working condition, has likewise been expended.

"The progress and execution of all the works has been in the highest degree satisfactory, and the Directors are assured that the sections of the line from Quebec to St. Thomas, (40 miles,) and from Montreal to Brockville, (125 miles,) will be delivered over to the company for traffic in the ensuing autumn. It is also understood the communication between Brockville and Toronto (a distance of 210 miles) will be completed in the course of next year. The periods prescribed for completion will be thereby anticipated by nearly two years as to the portions first mentioned, and one year as to the portion last mentioned.

"The section from Toronto to Stratford, (82 miles,) will be delivered over to the Company by Messrs. Gzowski & Co., the Canadian contractors, before the expiration of the present year.

"A connection will thus be effected between Stratford and Montreal, and between Montreal, Portland and Quebec, a distance of 841 miles, with the exception only of the link of the Victoria Bridge.

"It will be remembered that a portion of the proposed capital of the company, amounting to £837,600 pounds in bonds and shares, was reserved for parties interested in existing Canadian undertakings, who were considered to be entitled to, and under the then existing circumstances might be expected to claim, the benefit of such reservation. Obvious causes which shortly afterward supervened, defeated this expectation, and no part of the reserve so appropriated was taken up.

"It, therefore, became necessary to supply the deficiency from some other source, and application having accordingly been made to the provincial government of Canada for a further advance of province bonds, to an extent corresponding with the deficiency so created, an act was passed in the late session of the Canadian parliament, whereby the governor general was empowered to grant such aid to an amount not exceeding £40,000.

"Under the powers of this act bonds will be granted to that amount at the same rate of interest as borne by those already issued, and for a term of twenty years. The fund to be raised by these bonds is, however, expressly applicable only to the works executed subsequently to the 1st of May, 1855.

"The directors have not hesitated to avail

themselves of the assistance thus considerably and opportunely afforded, and they feel assured that in this they will have the ready concurrence and sanction of the stockholders.

"The total receipts from the traffic upon the line already opened between Portland and Montreal, are—

For the half year ending Dec. 31, 1853.....	£54,615
" " " " June 30, 1854.....	72,831
" " " " Dec. 31, 1854.....	97,907

For the first twenty-five weeks of the half year ending the 30th ult., £82,912; being an increase over the corresponding period of last year of 13,379l."

One of the great points of interest in connection with this road is the Victoria Bridge. The Hon. John Ross, President of the Company, in his remarks to the shareholders, with reference to this bridge said:

"The bridge would extend a distance of two miles; and whereas there was but one span at Niagara, there must necessarily be a series of spans at Montreal, and he thought scientific gentlemen who understood this subject, would find that the suspension principle could not be applied to the bridge over the St. Lawrence; and even if it could be applied, it would be more expensive than the Victoria Bridge, as at present designed upon the tubular principle. He held in his hand a memorandum from Mr. A. M. Ross, the engineer of the company, who paid a visit to the Niagara Bridge, and had several interviews with Mr. Roebling, who had superintended the erection of that bridge, and who, in fact, suggested the application of the suspension bridge to railway purposes. The result was that Mr. Ross ascertained that the cost of the superstructure of the suspension bridge at Niagara was £65 per lineal foot, whilst the cost of the superstructure of the Victoria Bridge was only £55 per lineal foot, making £10 in favor of the principle adopted by Mr. Stephenson, when he suggested the tube should be applied to the bridge at Montreal."

It was stated that £213,000 had been expended on this bridge thus far, and that a further expenditure of £60,000 was to be made on the works, which would be necessary whatever superstructure were adopted.

**RAILROAD INSTALLMENT.**—We learn from the Treasurer of the Keokuk and Fort Des Moines Railroad Company, that he has thus far met with encouraging success in collecting the first installment, nearly all upon whom he has called having paid up promptly. He is industriously making his daily rounds, but owing to the large number of subscribers and the difficulty of finding them, it is highly desirable that all who intend to pay should call without delay at the Railroad Office over Bruce's dry goods store. There are now over 250 hands at work on the road, and the first estimate is already payable. Prompt payments are absolutely necessary on all hands, and every good citizen will see to it that this great enterprise receives no detriment from his neglect.—*Des Moines Valley Whig*.



# REPORT OF THE BOARD OF TRADE ON THE RAILWAYS OF GREAT BRITAIN AND IRELAND, FOR THE YEAR 1854.

The first part of the able, elaborate, and excellent report of the Secretary of Railway Department of the Board of Trade, (Capt. Douglas Galton, R. E.), will be found inserted in another column.

The following are some of the facts contained in the other portion of the report for which this week we have not room in full.

The railways in Great Britain and Ireland which remain as already authorized for construction in Great Britain and Ireland, are 12,806 miles, of which 8,054 miles were constructed and open at the end of 1854. 4,752 miles remain to be opened.

	Miles open.
England and Wales.....	6,114
Scotland.....	1,043
Ireland.....	897

8,054

We may here observe, it has been estimated about 22,000 miles will ultimately in all be required to complete our railway system.

The total amount of capital authorized to be raised by shares and loans, to the end of 1854, amounted to £368,106,336, of which £286,068,794 was then raised.

Up to the 30th June, 1854, 7,803 miles of railway were open, and 90,409 persons were thereon employed.

	Averaged number of persons employed per mile.
Year to June 30, 1852.....	9.55
" 1853.....	10.7
" 1854.....	11.59

We presume it is the greatly increased goods traffic which has caused the large increase in the number of persons employed—11½ persons employed on every mile of line!

The number of persons conveyed on the railways in 1854, was 111,206,707, against 102,286,660 in 1853; number per mile, 14,160 in 1854, against 13,659 in 1853.

The receipts from all sources of traffic in 1854, amounted to £22,215,724, being £2,576 per mile; in 1853, £18,035,879, or £2,408 per mile.

The revenue, including rents, steam-boat receipts, &c., would be more than £20,215,724, which is stated to be traffic receipts alone. We are not told what these additional receipts amount to.

Of the £20,215,724, traffic receipts in 1854, as much as £11,040,779 was for goods traffic, being an increase of goods traffic of £1,565,979 over 1853's, or 16.5 per cent. increase, which is immense. In the year 1849, the goods traffic amounted to £5,528,606. Since that time the railways have increased in length 40.6 per cent., but the increase in the goods traffic has been 99.67 per cent.

Captain Galton finds the working expenses (including rates, taxes, and government duty) average 45 of the receipts of railways in Great Britain; that in England, it is 45 per cent., in Scotland 43 per cent., and in Ireland 46 per cent. The captain uses the term "working expenses," and we see by reference to the particulars that he includes therein rates, taxes, and duty. No railway in England can be worked without paying the rates, taxes, and duty.

Expenditure in 1854 per mile per train run in England, was 31.28d.; in Scotland 28.42.; in Ireland, 29.18d. Receipts per train per mile were 68.82d. in England; 59.33d. in Scotland; 61.19d. in Ireland. The reporter uses the expression "per mile run by the trains," but he clearly does not mean

that the expenditure and receipts mentioned are those appertaining to each mile of railway in respect of all the trains run over it in the course of the year, as that would be the traffic per mile per annum; he means, no doubt, *per mile per train*.

Capital paid up in 1854—ordinary, £166,030,806; preference, £49,377,952; loans, £70,660,036; total, £286,068,794.

The average fixed dividend paid in 1854 on the preference capital was 5.01 per cent., absorbing a sum of £2,475,188.

The average interest paid on the loan capital was 4.27 per cent., absorbing in the year £3,021,286.

The average rate of working expenditure having been 45 per cent. of the receipts, and after deducting the preference dividends and loan interest, there remained in 1854 from the £20,215,724 receipts—a sum as surplus profit equal to 3.39 per cent., say £3 8s. per cent. on the whole of the ordinary share capital.

Mr. Yeats recently calculated the return of profit on the ordinary unprivileged share capital at £3 13s. 9d. per cent. per annum; but then his calculation was for the second and better half of the year, 1854, and he included the rents, &c. Making due allowance for the circumstance alluded to, Mr. Yeats' calculations agree with the Government reporter's. We also notice that Mr. Hackett's statistics, compiled for the benefit of the readers of this Journal [see *H. R. J.*, January 6th last, pp. 2 and 3.] substantially agree with the Government's.

We suppose Captain Galton has included the capitals of the leased lines in the preference capital, and their rents in the preference dividends.

According to Captain Galton, the ordinary dividends of railway Companies have been in—

	Per cent.
1849.....	1.88
1850.....	1.83
1851.....	2.44
1852.....	2.40
1853.....	3.05
1854.....	3.39

We dare say this is near the mark. Captain Galton acknowledges that to hit it exactly is impossible.

Railway dividends will, we have no doubt, increase under good steady-going management.

**FRENCH RAILWAYS.**—The "Moniteur" has published the statistics of the French railways for the first six months of 1855 as compared with the first six months of 1854, by which it appears that in the first six months there were—

	1854.	1855.	Increase
Average length of lines worked in kilometres.....	4,131.....	4,761....	630
Gross receipts francs.....	85,852,037.....	112,767,037..	26,915,000
Average revenue per kilometre, francs.....	20,783.....	23,686.....	2,903

It thus appears that the traffic has increased 13.97 per cent. per kilometre. It may happen that a part of this increase is due to the war, and in such a country as France it is probable, but there is no doubt a very sensible part of it is likewise due to the increased prosperity and trade of the country. Louis Napoleon is not of those who would allow the resources of France to lie dormant. He owes his throne, under the name of his uncle, to the favor of the people, and he will not, therefore, neglect anything to increase their prosperity.

The average length of line-worked for the

first six months of 1855, was 4,761 kilometers, but at the end of the six months, or on the first of July, there were opened for traffic 4,975 kilometres.

## THE GALT AND GUELPH RAILWAY.

The Guelph *Herald* thus alludes to the agreement entered into between the Great Western and the Galt and Guelph Companies:

"The great Western Railway Company having proposed to the Board of Directors of the Galt and Guelph Railway to complete the line and have it in operation within four months, for the sum of £25,000, in addition to the loan negotiated by this municipality through the Municipal Loan Fund, and provided the Guelph Town Council would agree to take road stock to the amount of £7,500, in lieu of the bonds for that amount to be paid the municipality as a proportion of the security on such loan, so as to give the Great Western a first claim on the road for the balance of contract price beyond the amount of payment, this offer was accepted by the Galt and Guelph Board, subject of course to the acquiescence of our Town Council in the arrangement as regards the substitution of road stock for bonds. The council were, we believe, individually in favor of consenting to the proposal transmitted by the Galt and Guelph Directors, and to which an immediate reply was made necessary in consequence of the Managing Director of the Great Western being about to leave for Europe, but deeming it advisable to obtain the sanction of their constituents in the matter, a public meeting of the rate payers was called by the reeve for Friday last, to take the matter into consideration. The substitution of the Railway stock—which is not likely to give the shareholders a dividend for many years—for bonds paying six per cent. interest, will entail the annual amount of £450 additional assessment.

"If we 'calculate' aright, the municipality will henceforth be subject to a permanent charge of some £1,500 per annum on account of the construction of the Galt and Guelph Railway, implying a rate of 1s 6d in the pound on £20,000, the present amount of property forming the basis of our municipal assessment being something over £18,000. We have no hesitation, however, in saying that the electors have acted judiciously in the action they have taken, and that, under existing circumstances, they could not have done otherwise to profit."

## MAD RIVER AND LAKE ERIE RAILROAD.

We understand that the stockholders of the Mad River and Lake Erie Railroad did not proceed to the election of Directors at their annual meeting on Wednesday, Aug. 27, but postponed the execution of that duty until the 19th of September next. A larger number of Ohio Stockholders was present than at any time in the previous history of the company; which may be due to two causes, viz: the fact that a greater amount of stock is now held in this State, than at any former period in its history, or since the road has been put in operation, and that the criticisms of the press upon its management for the last year have awakened an unusual interest on the part of those whose interest is invested in the enterprise. This must be considered a favorable indication for the future of the road, as one of the essential elements of success for



any public improvement of that nature consists in the favorable interest of the local population on which it must depend, to a very considerable degree, for its most lucrative business. It is understood the stockholders took efficient measure to put themselves in possession of such facts as would qualify them to act understandingly in the selection of its managing directors, by the appointment of three committees, viz: one to investigate the accounts of the general Treasurer at Boston; the management of Boats, etc., consisting of Messrs. Estes Howe, of Cambridge; Mark Healy, of Lynn; and B. P. Chamberlain, of Salem, Mass.; one to examine the books of the local Treasurer, and inquire into the present system of checks in the management of the local disbursements, etc., on which were appointed Messrs. H. S. Flynt, F. T. Barney, and H. Wildman, of Sandusky; and a third, consisting of Messrs. S. A. Winslow, of Urbana; Judge Gardner, of Bellefontaine, and H. St. John, of Tiffin, Ohio, to investigate the working operations of the road, with a view to an increase of its business, the utmost economy of its expenditures, etc. These committees are required to report at the adjourned meeting in September. — *Sandusky Register*, Aug. 24.

**CLEVELAND AND WELLSVILLE RAILROAD.**—We learn that the contract for the erection of the bridge over Wheeling creek at Bridgeport, and for other work at that point on the Wheeling extension of the C. & W. Railroad, has been let to contractors who will push the work forward with all possible dispatch.

**MANITOWOC.**—The *Herald* says that at the annual election of Directors of the Manitowoc & Miss. R. R. the following gentlemen were chosen:

George Reed, Jarvis E. Platt, Chas. Klingholz, S. A. Wood, Manitowoc; Joseph Turner, Harrison Reed, Menasha; Benj. Jones, Chicago; H. L. Palmer, Milwaukee.

At a meeting of the Directors held on the same day, the following gentlemen were unanimously elected officers of the Company.

Geo. Reed, President; Jacob Leups, Treasurer; Geo. L. Lee, Secretary.

Joseph Turner, of Menasha, and Chas. Esslinger, of Manitowoc, were elected Deputy Treasurers.

**FREMONT AND INDIANA RAILROAD.**—The annual election of officers for this company was held in Fremont on the 25th of July. The following officers were chosen: Directors—La Q. Rawson (President), D. J. Cory, S. Carlin, James Moore, C. W. Foster, Benj. Metcalf, William Sawyer; Treasurer—Wm. Taylor; Secretary—B. Amsden.

The question is often asked: Will the Fremont and Indiana Railroad be built? We answer, Yes. The affairs of the Company are in a prosperous condition, but the stringency of the times has prevented the rapid progress which otherwise would have been attained. Recent contracts have been let between Lima and St. Mary's, and the road will be pushed toward completion with the utmost dispatch.

A report has been falsely circulated that a suspension of work had taken place on this road, the reverse of which is true; and we have assurance that at no time since the commencement of its construction have prospects for its completion been more flattering.

While saying this much we reserve for the future the filing of a general complaint against the doing of certain things by certain men connected with this road. *Findlay Cour.*

**LA CROSSE AND MILWAUKEE RAILROAD.** The *Milwaukee Sentinel* of August 23rd, says: This is the day fixed for the opening of the first section of the La Crosse and Milwaukee Railroad. The train starts from the Depot in the Second Ward, and runs 26 miles, to Schlesingerville, in Washington County, where connection is made by stages with Fond du Lac. The event is one of more than ordinary importance to our city. The trade and travel which will pour in upon us by this route will astonish some of our own people, even those who have been most sanguine of the success of the enterprise.

#### TERRE HAUTE AND RICHMOND R. R.

We are indebted to the Secretary of this well managed road for the following statement of the receipts of the T. H. & R. R. for July, 1855:

Passengers.....	\$12,524 44
Freight.....	4,261 82
Mail and Express.....	1,142 30
	\$17,928 56
July, 1854.....	13,672 87
Increase.....	\$4,255 69

**BRIDGE QUESTION SETTLED.**—The Cleveland & Toledo Railroad Company have leased the use of the track of the C. C. & C. R. R. Co., from Berea here,—12 miles. The gauge is to be changed to 4 feet 9½ inches.

**WELLAND CANAL.**—The last St. Catharines Journal says that during the month of July 542 vessels went through the Welland Canal—276 being American and 266 Canadian. In July of 1853, 546 passed through, of which 334 were American, and 212 Canadian—thus showing a decrease of 58 of the former and an increase of 54 of the latter.

In connection with this subject the Journal says for the benefit of those agitating the construction of a canal from Lake Huron to Lake Ontario at Toronto, we may remark that about two-sevenths of the traffic in the last month was with ports above the St. Clair river. This projected canal is expected to be 111 miles long—has to overcome an elevation of 250 feet above Lake Huron, and from the summit to Lake Ontario the descent amounts to 750 feet—making 1000 feet of lockage. The Welland canal has about quarter of the above length, and about a third of the lockage.

It will be a nice point to determine whether higher tolls—necessary from the immense cost for construction, right of way and maintenance—longer towage and greater lockage will not more than counterbalance what may be saved in distance. But we opine that the principal difficulty will be to supply the proposed canal with sufficient water at all seasons. In August, of last year, from a break at lock number 2, the water in each of the levels above and below it had to be drawn off, and after the damage was made good, the supplies afforded by the Grand River and the 12 Mile Creek were not sufficient to fill up both levels in less than a week. Now if the number of such accidents on that canal be in proportion to the larger number of locks it must have than are on this canal, how valuable will that work be as a channel of communication?—*S. N. Tribune.*

## Miscellaneous and Mechanical.

### REMOVING WHEELS AND AXLES FROM LOCOMOTIVES.

The removing of a pair of wheels and axle from under a locomotive, owing to the weight of the machine, is a tedious and slow operation, and is generally performed by raising the engine on jack-screws. This takes a long time and the assistance of a number of men, and on the whole costs rather more than it ought to do. As a necessary consequence, the repairs of the wheels of a locomotive are expensive. This often leads to delay in making them, and hence additional risk in running and wear of the whole machine. We find, however, in the Journal of the Franklin Institute a description of an apparatus which promises to obviate the difficulty. It is the invention of a Philadelphia mechanic, and a patent has been applied for.

The ordinary pit under the locomotive stand in the repair shop is narrower than the track, indeed the rails of the track usually rest on the walls of the pit. Now it is proposed to make the pit sufficiently wide to allow of the free motion up and down of a platform on which the track is laid. Imagine now this platform held firmly on a level with the other track, and the locomotive passed on the platform. On each side of the locomotive a series of levers are placed, of which the short arms project under the locomotive frame, and the longer arms are moved by screws. These arms receive the whole weight of the engine, while the weight of the wheels and axles only remain on the platform. The platform being now lowered, the wheels are easily removed, and an extra truck placed in their stead, the engine can be removed to its own stand again, if desired.

This is a simple contrivance, and if not too costly, we think must meet with favor.

### THE SCHENCK MACHINERY DEPOT.

This old and well established concern, has recently passed into the hands of Mr. A. L. Ackerman, as sole proprietor. Mr. Ackerman having been connected with the establishment for years, must be well known to those who have been in the habit of buying there.

**MACHINERY DEPOTS** of which there are but few in the country, are one of the necessities of modern manufactures, and particularly of railroads. They furnish everything that a machinist may want in the shape of tools, from the steam engine, lathe and drill, to the monkey-wrench, file and hammer. Every description of tool useful in making and repairing machines, made of iron or wood, is to be found here.

The Schenck Machinery Depot of which we speak, is located 163 Greenwich Street, N. Y., and occupies four stories of a large building. Among the pieces of machinery



we saw in a hurried visit, we may mention Woodworth's Planing Machines, of which they manufacture forty varieties, Slide and Hand Lathes of various sizes, Iron Planing Machines of various sizes, Sash and Tenoning Machines, Morticing Machines, Upright Drills, Chucks, Steam Engines, Boilers, Pumps, and a variety of smaller tools. The oak-tanned leather belting of this establishment is favorably known.

We commend the Schenck Machinery Depot to the attention of Railroad Superintendents who are about to fit up new repair shops or to add additional machinery to those they have already.

#### UP-GRADE LOCOMOTIVE—SELLERS' PATENT.

We had the pleasure of witnessing a few days since the trial of one of these engines. They are designed for roads where a very heavy grade cannot be avoided. The road for which these two engines have been built, has a grade of over 200 feet to the mile.

The principal characteristics of the engine are an extra pair of cylinders which drive a pair of horizontal drivers, grasping on a third rail in the center between the other two; and the pumps.

The horizontal driving wheels having their own cylinders, can be thrown in or out of operation at will. They are so arranged as to grasp on the middle rail with a force proportioned to the grade. The steeper the grade, the more firmly the wheels grasp the rail. The adhesion thus obtained is almost without limit.

The pumps are direct double acting force pumps, each pump has a small steam cylinder to drive it, and the same rod forms the piston rod of the cylinder and the moving rod of the pump.

The arrangement of valve gearing is also admirable. Instead of the eccentric commonly used, the same effect is produced by two cranks placed in a suitable position, with regard to each other. One crank producing the motion, the other effecting the cut off.

The performance of the engine was admirable. The cylinders worked perfectly smooth and the pumps threw a very large stream of water. The engines were built by Niles & Co., under the direction of Mr. Sellers, an engineer of reputation of this city.

#### COPPER MINES OF CONNECTICUT.

The recent discovery of copper in western Connecticut has turned attention in that direction. An apparently valuable mine has been recently opened in Torrington, Litchfield County, about 28 miles northwest of Hartford. It is near the center of the town.

With regard to this mine, the *Hartford Times* says: "Thus far, only a single working shaft has been sunk in this mine, and that to a distance of about 30 feet. It goes through a rocky formation, and the ore is found em-

bedded in blue slate. Of the rock thus far dug out in sinking this shaft, there are some 200 tons; and the mineral richness of the spot may be in a measure estimated, from the fact that the rock itself is found to contain about 7½ per cent of copper ore. This is the result arrived at from an analysis of a lot of it by the chemist of the Bristol copper mines.

The ore is found in good quantity at the depth above mentioned. Embedded in the blue slate, it presents itself in yellow, purplish or variegated colors. Many of the lumps already dug out are found to yield no less than 32 per cent of copper.

Charles S. Richardson, Esq., well known as a mining engineer, has carefully examined this mine, and has just made his report thereon. Capt. R. speaks with confidence on the value of the property for mining purposes. He says in his report that he knows of no copper mine in the state which on such shallow working, can exhibit such results as the Torrington mine. His opinion of the mineral wealth of the Naugatuck Valley has been made up from a pretty extensive and thorough personal investigation, and he believes that it is not yet half suspected and but very little known. The results thus far obtained in various parts of the valley, though sufficient to establish its reputation as a valuable mineral region, do not, in his opinion, convey a hundredth part of the actual resources of that section in mineral deposits. The most important business of western Connecticut, he believes, is to be the mining business; and the richest deposits he has yet found, either of iron or copper, are those now being brought to light at Torrington. The Engineer says in his report:

"The Lode cannot yet be properly defined. It is composed of Gneiss, Gozzan, decomposed Slate, Calkspar, Quartz, Mundic, Iron, Manganese, and yellow and variegated Ore. \* \* It is found outcropping entirely across the estate."

The estate across which the Lode extends, and which the Engineer thus alluded to, is about half a mile in width."

#### DEATH OF L. O. REYNOLDS, ESQ.

LATE PRESIDENT OF THE SOUTH WESTERN RAILROAD, GEORGIA.

We regret to learn from the Savannah *Courier* the death of this gentleman. The following resolutions were passed by the Board of Directors of the Central Railroad and Banking Co.

*Resolved*, That this Board feels deeply the loss which this Company and the community generally have sustained in the death of L. O. Reynolds, Esq., late President of the South Western Railroad Company, and a Director, and consulting Chief Engineer of this Company.

*Resolved*, That this Board bears testimony to the intellectual capacity, the unremitting labor, and marked faithfulness of their de-

ceased friend in all the varied concerns of the Company from the year 1836 to the period of his last illness. He entered the Company's service as Principal Assistant Engineer; became in 1837, by merit, Chief Engineer; finished the Company's Road in 1843; and ever since, upon every occasion, proved his devotion to the best interests of Savannah, and the great works which connects her with the Interior.

*Resolved*, That, in the estimation of this Board, there is no citizen of Georgia who has higher claims on the gratitude of the people, for intelligent aid and continued service, in the cause of Internal Improvement than Mr. Reynolds.

*Resolved*, That this Board sincerely condole with the surviving brothers and sisters of the deceased, in their bereavement. They have the great consolation to know that their brother enjoyed, during his career of usefulness, the esteem of all men, whether of the hard laboring class, or in the higher ranks of life, and that his departure from Earth was distinguished by pious resignation to the Divine Will, and the strongest Christian faith.

*Resolved*, That a copy hereof be published and also transmitted to the brothers and sister of the deceased.

EXPORT OF SUGAR FROM HAVANA.—The *Diara de la Marina* states, that during the half year ending June 30th, 1855, the export of sugar from the port of Havana amounted to 650,988 cases. In the corresponding period of the four preceding years, the export was as follows:

1854.....	cases 545,146
1853.....	439,919
1852.....	452,163
1851.....	505,192

Of the 648,988 cases exported during the first 6 months of the present year, 137,365 were consigned to Spain, 107,684 to the United States, 78,763 to Great Britain, 84,268 to Cowes and a market, 106,029 to France, 28,901 to Hamburg and Bremen, 22,566 to the Baltic and the North of Europe, 19,281 to Belgium, 15,709 to Trieste and Venice, 8,206 to Gibraltar and a market, 7,750 to Holland; 8,750 to Central and South America, and the rest to various other ports of the world.

#### LAKE SUPERIOR MATTERS.

The following items are from the Lake Superior *Journal* of the 4th:

**BUSINESS OF THE CANAL.**—The following is the total business for the months of June and July, commencing on the 19th of June, the date of the opening:

The total number of vessels, steamboats, etc., passing the Canal is,

	No. Vessels.	Tonnage.	Tolls.
June.....	19	9,791	\$390.84
July.....	26	20,776	830.24

The number of passengers who have passed through the Canal during the months of June and July, is as follows:

	June.	July.
Passengers.....	540	1,974

The down freight is made up of Copper, Iron, Oilstone, Fish, etc.

The total receipts and expenditures of the Canal are as follows:

	June.	July.	Total.
Receipts.....	\$390.84	\$830.24	\$1,221.00
Expenditures.....	252.21	919.31	1,171.42



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D. ASK'D.	SHS. OFF'D. ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872	7 1872		
Baltimore and Ohio.....	Transferable. Taxed.....	6 1883	79%	100 44 44
Do do.....	Coupons. Not Taxed.....	6 1875		
Do do.....	" ".....	6 1880		
Do do.....	" ".....	7 1860		
Do do.....	" ".....	6 1885		
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866	98	50 45
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866		
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870	97 99	98 100
Chicago and Mississippi.....	1st " ".....	7 1862		
Do do.....	2d " ".....	7 1874	65	
Chicago and Aurora.....	1st " ".....	7 1866		
Cincinnati, Newcastle and Mich.	Real Estate.....	7 1859		
Cleveland, Columbus, and Cin'ti	1st mortgage, convertible.....	7 1859	100	109 1/2 111
Do do.....	No mortgage, convertible.....	7 1855		
Cleveland and Mahoning.....	" ".....	7 1861		
Cleveland, Paines, & Ashtabula.	1st mortgage.....	7 1861		
Do do.....	2d " not convertible.....	7 1861		
Cleveland and Pittsburgh.....	1st " convertible.....	7 1860		71 73
Do do.....	1st " 2d sec. convertible.....	7 1873		
Cleveland and Toledo.....	1st mort. not conv. '73.....	7 1863	93 94	50 87 1/2 89
Cleveland, Zanesville, & Cin'ti.	" ".....	7 1867		84 86
Cincinnati, Hamilton & Dayton.	1st mortgage " till 1855.....	7 1860	85 1/2 88	
Do do.....	2d mortgage.....	7 1860	45 1/2 47	
Cincinnati, N. C. & Michigan...	1st mortgage, real estate, conv.	10 5 & 10 y's	44 1/2 47	
Cincinnati Western.....	" ".....	8 " "	44 1/2 47	
Cincinnati, Wil. and Zanesville.	2d " ".....	7 " "	68 71	12 1/2 14
Cincinnati, Ind. and Chicago.....	" ".....	7 " "	68 71	40 45
Cincinnati and Chicago.....	Real Estate.....	8 1859	42 1/2 44	14 1/2 15
Columbus, Piqua and Indiana.....	1st mortgage, convertible.....	7 1862	75 76	
Do do.....	2d " ".....	7 " "	60 61	
Columbus and Xenia.....	1st mortgage, convertible.....	7 1859	80	91 93
Covington and Lexington.....	2d " " till 1862.....	7 1863	67 1/2 68	50 30 31
Do do.....	Income.....	10 " "	68 1/2 69	50 20 22
Dayton and Michigan.....	1st " ".....	7 1867		50 20 21
Dayton and Western.....	1st " ".....	7 1862		
Dayton, Xenia and Belpre.....	1st " ".....	7 1864	26 30	
Eaton and Hamilton.....	1st mortgage.....	7 1862	60	25 45 50
Erie and Kalamazoo.....	1st mort. guaranty Mich. S. R. R.	7 1862		
Evansville and Crawfordsville.....	1st mortgage.....	7 " "	80 81	
Fort Wayne and Southern.....	" ".....	7 " "		15 1/2 14
Franklin and Warren.....	" ".....	7 " "		
Galena and Chicago Union.....	Pledge of second section, conver.	10 1853-6	99 1/2	100 111 112
Hillsboro and Cincinnati.....	1st mort. ".....	7 1878	62 1/2 64	50 25 27
Illinois Central.....	1st mortgage, not convertible.....	6 1875	86 88	100 97 1/2 100
Do do.....	Freeland.....	7 " "	87 88	
Indiana Central.....	1st mortgage, convertible.....	7 1866	63 1/2 75	50 50 52
Do do.....	" ".....	10 1857	80	50 50
Indianapolis and Bellefontaine..	1st " ".....	7 1860-1	75	25 50 50
Indianapolis and Cin'ti. a'.....	2d mortgage.....	7 " "	80 82	50 68 73
Indianapolis and Lafayette.....	" ".....	7 1861		
Jeffersonville.....	1st " not ".....	7 1861		36
Junction (Ohio).....	1st " ".....	7 1867		50 11 15
Do Indiana.....	Real Estate.....	10 " "	72 73	12 15
La Crosse and Milwaukee.....	8 1864	77 82		
Little Miami.....	1st mortgage, not convertible.....	6 1883	86 90	100 97 99
Do do.....	" " till 1855.....	7 1861		
Louisville and Ashville.....	" " unconvertible.....	7 1858	9	100
Lvons, Iowa, Central.....	1st mortgage, convertible.....	7 1873		
Mad River and Lake Erie.....	1st mortgage, convertible till 1855	7 1855-6	75	50 40 43
Do do.....	2d " ".....	7 1866	75	
Do do.....	Dividend.....	7 1860	75	
Madison and Indianapolis.....	1st mortgage, convert. after 1853.	6 1861		50
Marietta and Cincinnati.....	Domestic Bonds.....	5 " "		50 27 1/2 30
Do do.....	2d " ".....	5 " "		50
Hillsboro and Cincinnati.....	1st " ".....	5 " "		
Maysville and Big Sandy.....	" ".....	6 1873		50
Maysville and Lexington.....	1st mortgage, convertible.....	6 " "		
Memphis and Charleston.....	" ".....	8 1860	97	100 102
Michigan Central.....	No mortgage, convertible.....	8 1855-6		
Do do.....	" " not ".....	8 1857-8		
Michigan Southern.....	1st " ".....	7 1860-90	100	103 105
Milwaukee and Mississippi.....	1st " ".....	8 1862		
Mobile and Ohio.....	1st mortgage 6s. 1884.....	10 1858-62		50 15 18
Nashville and Chattanooga.....	" " on other sec. con. 6s.	8 1864-75		
New Albany and Salem.....	1st " convertible.....	6 1873		
New Castle and Richmond.....	" ".....	7 " "	104 105	100 1/2 103
New York Central.....	1st mortgage, not convertible.....	7 1867	85 1/2 88	52 1/2 53
New York and Erie.....	2d " convertible.....	7 1871	101 101	
Do do.....	" ".....	7 1883		
Northern Cross, Ill.....	1st mortgage, convertible.....	8 1873		
Northern Indiana.....	1st " not convertible.....	7 1861	79	
Do do.....	1st " Goshe line.....	1868	90 91	105 106
Do do.....	Construction Bonds.....	7 1861	61	40 46
Ohio Central.....	1st mortgage, convertible.....	7 1860	52 1/2 53	10 15
Ohio and Mississippi.....	2d " ".....	7 1867		50 14 18
Ohio and Indiana.....	1st " ".....	7 1865		
Ohio and Pennsylvania.....	" ".....	7 1872		
Do do.....	Income. No mortgage, convert.	7 " "		50
Pacific, Mo.....	" ".....	7 1866	101 1/2 105	109 1/2 110
Panama.....	1st mortgage, convertible.....	7 1873		
Parkersburg (or N. western Va.)	" Guar. City of Balt.	6 1880		50 43 1/2 40
Pennsylvania.....	1st mortgage, convert. till 1860.	7 " "		25 30 31
Peru and Indianapolis.....	1st " ".....	7 1872		50
Rock River Valley Union.....	1st " ".....	7 1860		
Sandusky and Mansfield.....	2d " ".....	10 1853-7		
Do do.....	1st " income.....	7 1861	50 51	50 50 51
Scioto and Hocking Valley.....	" ".....	7 1865		
Southwestern, Tennessee.....	1st mortgage, convertible.....	7 1862-72	91 93	
Springfield and Columbus.....	2d " ".....	8 1865	83 1/2 85	
Steubenville and Indiana.....	1st " ".....	6 1866		
Terre Haute and Alton.....	1st " ".....	7 1863		
Do do.....	2d " ".....	7 1863	87 88	50
Terre Haute and Richmond.....	1st " ".....	6 1866		
Toledo, Norwalk and Cleveland.	1st " ".....	7 1863		
Do do.....	2d " ".....	7 1863		
Do do.....	Guar. of C.....	1883		

STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D.
U. S. Loan.....	6	1856	105 1/2	105
Do.....	6	1862	112 1/2	113
Do.....	6	1867	117 1/2	120
Do.....	6	1868	119 1/2	120
Do (Int. ceased July 1) 5	5	1853		102
Do Coupons.....	6	1862		118
Do.....	6	1867		118
Do.....	6	1853		101

## STATE.

Alabama.....	5			
California.....	7	1870	87	88
Arkansas.....	6			96
Georgia.....	6		98	99
Do.....	7			
Illinois Canal Bonds.....	6	1860		
Do do registered.....	6	1860		
Do do.....	6	1847		
Do do registered.....	6	1847		
Do do Internal Imp't. 6	6	1847	106 1/2	108
Do Interest do.....	5		64	64
Indiana.....	5		86 1/2	87
Do.....	2 1/2		53	54
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6	1871	103	
Do 16 years.....	6		102	
Do large bonds.....	6	1869-72	100 1/2	
Do.....	5			
Louisiana.....	6		95 1/2	96
Michigan.....	6		97	98
Missouri.....	6		94	96
New York.....	6	1860-61	112	114
North Carolina.....	6		97 1/2	100
Ohio.....	6	1856	100	
Do.....	6	1860	105 1/2	106
Do.....	6	1870	110	111
Do.....	6	1875	112	113
Do.....	5	1855		
Pennsylvania.....	6			
Do.....	5	1870	88	89
Tennessee, long loan.....	6	1892	95 1/2	92
Do Coupons.....	5		81	83
Virginia Coupons.....	6	1886	98	100

## CITY SECURITIES.

Albany.....	6	1871-81	99 1/2	
Allegheny.....	6	1875-7		100
Baltimore.....	6	1870-90	99 1/2	100 1/2
Do.....	5	1865		
Boston Bonds.....	6	1860		
Chicago.....	6	1873-7	92 1/2	95
Cleveland.....	6	1879	103 1/2	105
Cincinnati.....	6	1866-92	96	96 1/2
Do.....	6	1897		
Do.....	5	1864		
Do W. W.....	6	1865		
Covington.....	6	1857	80	80
Jeffersonville.....	6	1890	70	
Louisville.....	6	1860	86 1/2	87
Memphis.....	6	1882		72 1/2
New York.....	5	1857	100 1/2	
Do.....	5	1858-60	96	99
Do.....	5	1870-5	97	100
Do.....	5	1890		
Philadelphia.....	6	1876-90	94 1/2	95
Pittsburgh.....	6	1869-78	81	82
Do coupons.....	6	1853		
Racine.....	7	1873	61 1/2	63
St. Louis.....	6	1870	85	86
Wheeling.....	6	1873	81 1/2	83

## COUNTY BONDS.

Bourbon, Ky.....	6	1881	77 1/2	80
Darke, O.....	7			
Fairfield, O.....	7	1862		
Fayette, Ky.....	6	1881-3	75	75
Hancock Co.....	7		70	75
Mason, Ky.....	6	1881	73	76
McClacken Co. Ky., endorsed by				
New Orleans and Ohio R. R.				
St. Louis.....	6	1866	80	85
Do.....	7	1871		

## BANKS.

American Exchange Bank, N. Y.....	105 1/2			
Ohio Life Insurance and Trust Co.....	98		100	
Washington Insurance Co.....	84		85	
City Insurance.....	70			
Cincinnati Insurance Co.....	84			
National Insurance.....	75		80	

## KENTUCKY.

Bank of Kentucky and Branches.....				
Northern, and Branches.....			100	
Southern, and Branches.....				
Bank of Louisville.....			93	
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....			105	108
Commercial Bank of Kentucky.....				

## INDIANA.

State Bank and Branches.....				
State Bank and Branches.....				
Union.....				
Planters.....				

## LAND WARRANTS.

160 acre warrants, per acre.....	Buy'g	Sell'g
80 acre warrants.....	\$1 10	1 12 1/2
40 acre warrants.....		



It must be remembered, however, by the reader, that the above statement exhibits the *minimum* of actual and prospective receipts, and the *maximum* of debt and expenses. It is certainly below what a twelve-month experience will prove, and we may safely hope to realize a much larger amount of receipts. The fall trade promises unusually well, and the certainty of promptness on the Central road under its present efficient management, will draw to it a full share of passenger and freight traffic.—*Zanesville Courier*.



## IS GOLD DEPRECIATING?

This question is cleverly discussed in a recent number of the *Aktionare*, in an article dated Zurich. The following statement is translated from that journal:—

"Since some years there has been much interesting matter written in relation to the value of the noble metals. The majority of estimates in relation to the quantity existing at the time of the discovery of California make the total nearly \$1,200,000,000; some place it at over \$2,000,000,000. We do not place the figures so high. But it is to be considered also about what is the total of those things which require the functions of money?

"We will attempt a general estimate, placing the quantity of coined gold and silver, including ingots,

Which are not in bank at.....	£ 500,000,000
Bank notes in circulation in the world...	250,000,000
Inland exchange of all countries, estimated on the British stamp for 1854.....	600,000,000
Private debts and credits not represented by exchange.....	1,500,000,000
Government stocks and shares on the various stock markets.....	150,000,000
Total.....	£3,000,000,000

"This may be considered a very moderate estimate of all those things which in all countries require the services of the metals. If now the gold countries discovered since 1846 produce together £30,000,000 annually, the result is one per cent. of the above sum. Population, necessities, and prosperity, however, increase, irrespective of higher prices and wars, more than one per cent. The rest of the world, not speaking exclusively of wholesale trade, is served with metallic money as well as credit — of coined money there is always about the same quantity, but credit is very elastic. The periods of so-called money scarcity, that is, contraction of credit, and money abundance, that is, expansion of credit, are taken for each other reciprocally.

"What may be the annual exchanges of the world?

"The *Journal des Debats* for January 15, 1851, puts the annual interchanges of known countries at £1,200,000,000, half of that is exports and half imports. Now, every article before it is exported will, on an average, be exchanged twice; and every article imported will likewise be exchanged twice,

Making an exchange of.....	£2,400,000,000
The population of the money-using world may be taken at 600,000,000, and every individual buys of domestic produce \$25 worth, not included in the above estimate, and after these purchases pass through two hands, the result is.....	6,000,000,000
The quantity of stocks, shares, etc., of all descriptions of companies in the world, which is annually bought and sold, is taken at.....	3,000,000,000
Annual sales, houses, lands, etc.....	600,000,000
Total.....	£12,000,000,000

"Of what importance, in comparison with this sum, is an annual production of 30,000,000 of gold? It is about one-fourth of one per cent.

"But the above estimates are far too small. If we take the productive value of all lands at only £6,000,000,000 per annum, and allow these to be twice exchanged, we have alone £12,000,000,000, exclusive of the operations in stocks, houses, lands, etc. The chances that more gold countries will be discovered are less than that the present production of California and Australia will not be sustained. If we do not regard the present production as likely to depreciate the metals, we are far from thinking the yield will be without

influence. On the contrary, we expect from it a very important stimulus to enterprise and speculation. It is just possible that a production of 30,000,000 will be as great a stimulus as one of 60,000,000. The consequence will be the contrary of a depreciation of gold.

"Many believe that the present high prices of things are to be attributed to gold; but in the case of food and all relatives to it we have direct reasons, apart from gold influence, and of other articles we can see none of which the stocks are not disproportioned to the consumption, as compared with the seasons of lower prices.

"From 1847 to 1853, when the English crisis and European disorders had subsided, low rates of food, attended with unusual prosperity and great power of consumption, enhanced by the restored feeling of political security, the progress of free trade, the increase of means of communication, and the direct influence of the gold receipts, were all causes of higher prices.

"Those whose views are like our own, will not expect a reduction of the value of gold in respect to silver. If prior to 1847 there existed 1,200,000,000 of the metals, 33 per cent. gold and 66 per cent. silver, and gold has been produced at the rate of 30,000,000 annually, the proportion increase is only 1½ per cent. But the increase of business has been in those countries, England, France and the United States, that have gold standards, far greater. France has used a silver standard, but designs adopting gold. Since 1795, she has coined £173,000,000, but the coinage has now ceased. It has been estimated that within a few years France possessed £80,000,000 of silver, of which the larger portion has been exchanged for gold, and thrown upon the markets of the world. Other countries also, Germany and Switzerland, absorb more or less gold. The use of silver for mechanical purposes has been less than it was. The production of silver through the abundance of mercury is enhanced.

"In conclusion it is to remark, that if the population of this money-using world is 600,000,000, an annual production of £30,000,000 is about one shilling per head."

**LUMBER TRADE OF CLEVELAND.** — The *Cleveland Herald* of Aug. 10th, says: "The aggregate amount of pine lumber received here the past season is about 48,000,000 feet, being 12,000 feet less than the year previous. This falling off in the receipts is mainly attributable to the anticipated benefits of the Reciprocity Treaty, which did not go in effect till late last fall, and to the great pressure in the money market, causing a temporary suspension of improvements. This stringency in money matters has mostly passed by, and all manner of building materials are again in good demand, and from present appearances there is a good time coming for the lumber dealers of Cleveland.—The prices of pine lumber are rapidly advancing being from one to three dollars per thousand higher than in the spring. The effect of the Reciprocity Treaty, has not, as many supposed, reduced the price in lumber, but has resulted in raising the price on timber and timbered lands in Canada, in the same proportion as the tariff reduced the price of lumber.

**STATEMENT OF THE METROPOLITAN FIRE INSURANCE COMPANY,** of the city of New York, filed in the office of the Auditor of the State of Ohio, in conformity with an act of the Ohio Legislature, passed 1st of May, 1854, to regulate the agencies of Insurance Companies not incorporated by the State of Ohio.

- First.* The name of the company is "The Metropolitan Fire Insurance Company."  
*Second.* The amount of capital subscribed is..... \$300,000 00  
*Third.* The whole amount is paid up in cash.  
*Fourth.* The assets of the Company are as follows:  
 1. Cash on hand..... \$ 19,420 98  
     In hands of agents, say..... 500 00  
 2. Real Estate. None.  
 3. Bonds held by the Company. None but those secured by mortgage.  
 4. Debts secured by mortgage, 286,847 92  
 5. Debts secured by pledge of Bank Stock..... 3,400 00  
 6. Debts for Premiums..... 3,261 72  
 7. Other securities. None.  
*Fifth.* No debts are due to Banks or to any other creditors of the Company, except a few small bills on account of expenses, say \$600.  
*Sixth.* No loss is adjusted and due.  
*Seventh.* No loss is adjusted and not due.  
*Eighth.* Losses unadjusted—one claim of \$1250.  
*Ninth.* No loss in suspense, except above.  
*Tenth.* No other claims against the Company.  
*Eleventh.* The greatest amount insured by this Company, in any one risk, is \$10,000, except in one instance, where risks to the amount of \$15,000 are taken.  
*Twelfth.* No limit is fixed upon the amount insured in any one city, town or village.  
*Thirteenth.* No limit is fixed upon the amount insured in one block. In both these cases the amount is left to be determined by the circumstances, under stringent rules as to the quality and relative situation of the risks assumed.  
*Fourteenth.* The Charter of this Company is formed under the general Insurance Law of the State of New York and a copy thereof is on file in the office of the Auditor of State of the State of Ohio, together with the act of the Legislature of New York amending said Charter, passed January 31, 1853.

STATE OF NEW YORK,  
 City and County of New York, } ss.

On the twenty-fifth day of July, 1855, before me personally appeared James L. Graham, to me known to be the President, and Edward A. Stansbury, to me known to be the Secretary of the Metropolitan Fire Insurance Company, in the city of New York, who being by me duly sworn, did depose and say, each for himself, that the foregoing statement of the affairs of said Company, as the same were on the first day of July instant is true, and that the copy of the Charter and accompanying proceedings on the organization of said Company, appended to the statement filed by this Company in the Auditor's office of the State of Ohio, in March last, is a true copy thereof, and that said Charter and proceedings are in conformity to the laws of the State of New York, and that said Charter remains in full force without alteration.

JAMES LORIMER GRAHAM, PRESIDENT.  
 EDWARD A. STANSBURY, SECRETARY.  
 Sworn and subscribed before me, this twenty-fifth day of July, A.D., 1855.

MOSES B. MACLAY,  
 A Commissioner of Deeds for the State of Ohio.

**CERTIFICATE (ORIGINAL) OF AUTHORITY.**  
 To expire the 31st day of January, 1856.

STATE OF OHIO,  
 Auditor of State's Office,  
 COLUMBUS, July 31st, 1855.  
 WHEREAS, The METROPOLITAN FIRE INSURANCE COMPANY, located at New York City in the State of New York has filed in this office a sworn statement of its condition as required by the first section of the "Act to regulate the agencies of Insurance Companies not incorporated by the state of Ohio", passed May 1, 1854:  
 AND WHEREAS, said Company has furnished the undersigned satisfactory evidence that it is possessed of at least one hundred thousand dollars of actual capital invested in stocks of at least par value or in bonds or mortgages of unincumbered real estate worth double the amount for which the same is mortgaged:  
 AND WHEREAS, said company has filed in this office a written instrument under its corporate seal, signed by the President and Secretary thereof, nominating and appointing LEMUEL A. OSTROM of Cincinnati its agent for the transaction of the business of Fire Insurance, and fully and unreservedly authorizing him to acknowledge service of process for and on behalf of said Company consenting that service of process upon him, the said agent, shall be taken and held to be as valid as if served upon the Company according to the laws of this State or of any other State, and waiving all claim of error by reason of such service.  
 NOW WHEREFORE, In pursuance of the first section of the "Act to regulate the Agencies of Insurance Companies not incorporated by the State of Ohio," passed May 1, 1854, I, WILLIAM D. MORGAN, Auditor of said State, do hereby certify that the said LEMUEL A. OSTROM is authorized as an Agent for the said Company, to transact the business of Fire Insurance in this State,



until the thirty-first day of January, in the year one thousand eight hundred and fifty-six, so far as he may be legally empowered so to do by his letter of appointment and the instructions which may be given to him by the said Company.

IN WITNESS WHEREOF, I have hereunto subscribed my name, and caused the seal of my office to be affixed this 31st day of July, in the year of our Lord one thousand eight hundred and fifty-five.

aug16

W. D. MORGAN, AUDITOR.

### Insurance Agency.

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**

**Railroad Depots and Station Houses,**

at current rates. **L. A. OSTROM,**  
Aug. 16. No. 6 West Third Street, Cincinnati.

## SCHENECTADY Locomotive Works,

SCHENECTADY, N. Y.

THESE WORKS HAVING BEEN ENLARGED and improved, and having received extensive additions to their tools and machinery, are prepared to receive and execute orders for

**LOCOMOTIVE ENGINES,**  
**AND TENDERS, AND**  
**RAILROAD MACHINERY**

generally, with the utmost promptness and despatch, and in the best style.

The above works being located on the New York Central Railroad, near the center of the state, possess superior facilities for forwarding their work to any part of the country, without delay.

**JOHN ELLIS, Agent.**

**WALTER McQUEEN, Sup't.** Aug. 16. 1y.

### Railroad Iron,

**1,500 TONS**, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.**, 9 South William street. 8. 1m

New York, Aug. 16th, 1855.

### RAILROAD IRON.

**1,000 TONS** best quality Welch Rails, "Erie" Pattern, 59 lbs. per yard, to arrive, due here in fifteen days. Apply to

**VOSE, LIVINGSTON & CO.,**  
New York, Aug. 16th, 1855. 9 South William st.

**MIDDLETON, WALLACE & CO.,**  
**LITHOGRAPHERS & ENGRAVERS,**

No. 115 Walnut St., Cincinnati.

**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
Beautifully executed and at moderate rates.

**Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.**

Engraved in all styles and on short notice.

## NOTICE TO CONTRACTORS.

PROPOSALS will be received at the office of the Henderson and Nashville Railroad company in Madisonville, Kentucky, until the first Monday in October next, for the grubbing, clearing, grading and masonry of said road, or any part thereof. The work will be divided into convenient sections to suit bidders, of not less than half a mile. Proposals will be opened at the city of Henderson, on the said first Monday in October, at which time and place the Board of Directors will meet for that purpose.

**E. G. SEBREE, Pres't.**

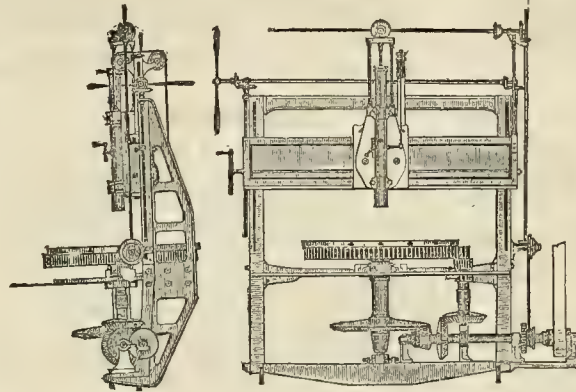
**CHAS. SKYMOOR, Chief Engineer.**  
August, 18th, 1855.

5w

# NILES' WORKS.

## FOUNDERS AND MACHINISTS,

EAST FRONT STREET, CINCINNATI,



Manufacturers of  
**TYRE LATHES,**  
Of the most approved plan.

**HORIZONTAL**  
**FACE PLATE LATHES,**  
OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

**PLANING MACHINES**  
LARGE & SMALL.

## MARINE & STATIONARY ENGINES.

BOILERS OF EVERY DESCRIPTION.

## HEAVY FORGINGS,

IRON AND BRASS CASTINGS, &c., &c.

## BANCROFT & SELLERS,

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well known class of

**ENGINEERS' & MACHINISTS' TOOLS,**

SHAFTING, GEARING,

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**MATHEMATICAL INSTRUMENTS.**

**T. F. RANDOLPH & BRO.,**

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No. 1, 2d STORY APOLLO BUILDING,  
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**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.



## LOCOMOTIVES FOR SALE.

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines, 28 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS, President.**  
Also, for sale, two Twenty Horse Power Stationary Engines. Aug. 9 4t

## THE SCHENCK MACHINERY DEPOT

AND

### Leather Banding Manufactory,

No. 163 GREENWICH STREET,  
NEW-YORK,

**KEEPS** constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

**A. L. ACKERMAN, PROPRIETOR.**

Aug. 9 1y

**D. D. MILLER,**

Manufacturer of

**LOCOMOTIVE, RAILROAD AND HAND**

**LANTHERNS,**

190 Water Street, New York.



**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style. Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,  
Railroad Record Office, 167 Walnut st. Cin.

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

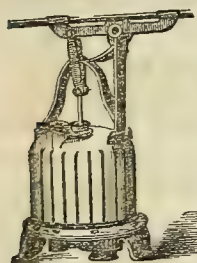
W. CLOUGH,  
South-western Car Works.  
Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,  
CINCINNATI, O.,

**Sole Manufacturers of McGowan's Double Action  
SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.  
Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-19

**IRON BOILER FLUES.****PASCAL IRON WORKS.****MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**  
From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.

**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 15th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Grainger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly Cash.

R. L. OWEN, Chief Engineer.

Aug. 2, 1855.

aug2 12w

**THE KENTUCKY  
MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,

President of the Board.

July 26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

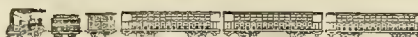
The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leave Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40

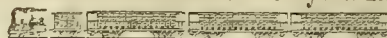
MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.  
Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.20 A. M., & 6.20 P. M.  
LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M., 1.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

**CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.**

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50  
" Lafayette.....5 50  
" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

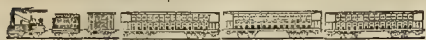
The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

Feb. 8-ly

D. M. MORROW, Superintendent



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILA-**  
**DELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, and various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 8f Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co.

S. S. POST,  
Chief Engineer and Superintendent.

Omnibuses run from the principal hotels, and call on orders left at the Ticket Office.

Omnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

## STEREOTYPE FOUNDRY, AND AGENCY OF L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of

**STEREOTYPING,**  
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

**AT THE FOUNDRY PRICES.**  
C. F. O'DRISCOLL,  
163 1-2 Vine Street, Cincinnati, O.

1855. New Arrangement, 1855  
**COMMENCING MONDAY, JULY 16.**



## LITTLE MIAMI RAILROAD, VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M.,  
10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both  
to and from Cincinnati and the East.

LAID WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.  
CINCINNATI TO CLEVELAND in 8½ hours.  
CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

To Columbus in.....	3½ hours.
To Cleveland in.....	8½ "
To Dunkirk in.....	14½ "
To Buffalo in.....	16 "
To Albany in.....	26 "
To New York in.....	30½ "
To Boston in.....	35 "
To Crestline in.....	6 "
To Pittsburg in.....	14 "
To Philadelphia in.....	30½ "
To Wheeling in.....	10 "
To Baltimore in.....	26½ "
To Washington in.....	29 "
To Steubenville in.....	12 "

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.  
Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fairmount, Cullerville, Boyd's, Berry's, Robinson's, Garrett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M.; stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthia.....	2 00

**FOR THROUGH TICKETS,**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,

Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices

oct. 17\* CLAYTON &amp; GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

VIA LAWRENCEBURG,  
IN connection with the **Ohio and Mississippi Railroad.**

Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and La Fayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.  
Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,  
Cincinnati, June 12, 1855. Agent,

**W. G. ATKINSON,**  
Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared.

mar-17



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNYS &amp; PECK,

je.9-1f

Louisville, Ky.

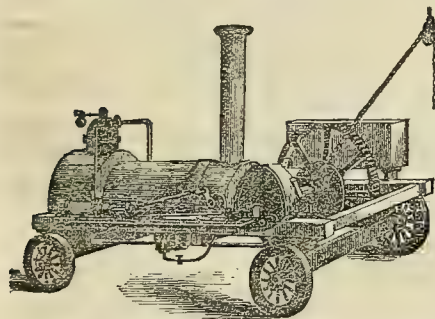
**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch. jy.27.

RICHARD NORRIS &amp; SON.

**A. L. ARCHAMBAULT'S****PORTABLE STEAM****HOISTING & PUMPING ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

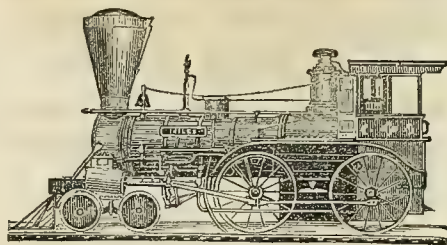
After a fair trial of it, in comparison with the Steam Gauge in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the MERCURIAL GAUGE, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MRS. DURAND, FULTON and TILTON. Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c. feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars.**

The attention of Railroad Managers and others is called to this valuable improvement in **AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th, 1853. mar1-f

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car,

Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and

Hose, assorted Car Trimmings, Enamelled head and seat

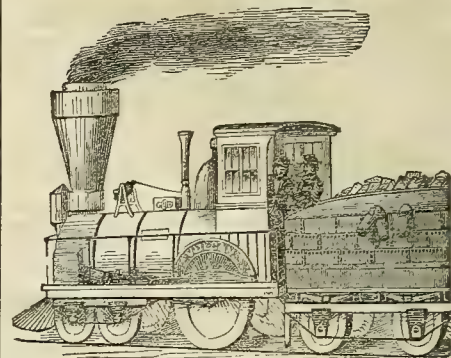
Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work,

Shafting and Shop outfit, Punching and Shearing Machines, for Boiler

Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. jyl3.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch. ap.20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T &amp; E. Wason, Springfield, Massachusetts. toc20

**Railroad Car Findings.****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Castings Fitted Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**

Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport &amp; Bridges, Car Manufacturers, Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges &amp; Co., Fitchburg, Mass. toc6

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

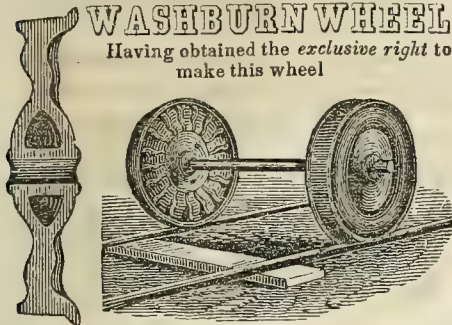
They also manufacture blacksmith tynes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment. Dayton, Jan 24th. 1853. Jan.25-f



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**  
We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
au4tf. Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

**Railway Car Manufacturers,  
MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

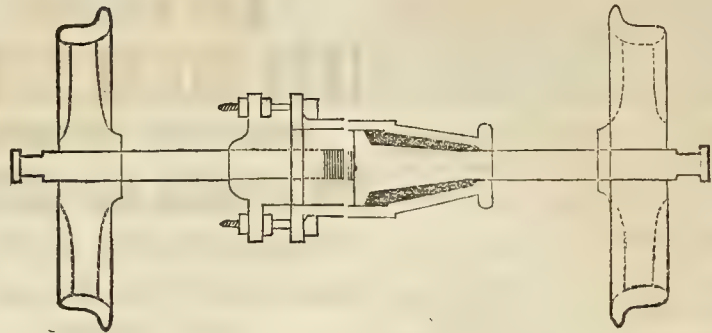
Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16\* J. JOSEPH DAVENPORT.

### S. C. THOMSON & CO., MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n.12½ NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

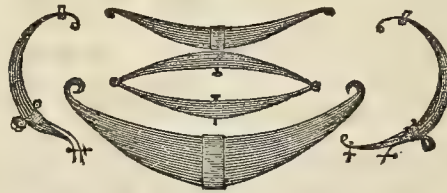
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

iy10†

## MCDANEL & HORNER, LOCOMOTIVE AND CAR MOTIVE SPRING



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

NORRIS BROTHERS, Locomotive Builders, Philad.

A. C. GRAY, Prest. New Castle Manuf. Co.

U. WELLS, R. R. Car Manuf. Petersburg, Va.

I. R. TRIMBLE, Supt. Philad. R.R. Co.

May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.

EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.

THOMAS DOUGHERTY, Master Mach. do.

THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.

## DURYEE & FORSYTH'S PATENT PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.  
HEWSON & HOLMES,  
83 and 85 Walnut Street.

## THOS. M. CASH, PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,

Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "

Charles H. Fisher, Esq., Pres't S.C.R.R. Co. Charleston, S. C.

Jno. Caldwell, Esq., Pres't N.E. R. R. Co. "

Pinckney Huger, Esq., Pres't N.E. R. R. Co. "

Oct. 13-1f.



**Parry's Anti-Friction Box,**

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1853.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed,

G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEORGE T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents,**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**

WHALEBONE AND STEEL WIRE BRUSHES.

**Artesian Well Tubes**  
**Screwed Flush inside & outside.**

**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**

**HOLLOW SLAB WATER TUYERES,**

For Smith's use, and

**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

For warming air, boiling water and heating ovens.

**ANNULAR**  
**SURFACE CONDENSERS,**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**

of any calibre.

**PATENTED CAST-STEEL TIRES,**

For Railway Wheels. Railway Axles and Springs,  
**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

**FRIED. KRUPP,**

Essen Rhenish Prussia.

Represented solely in the United States by

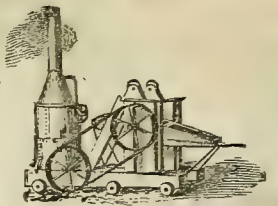
**THOMAS PROSSER & SON,**

**28**

PLATT STREET, New York

**"GARDNER'S ROCK DRILL."**

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

nov17+

G. ARTHUR GARDNER,  
Trinity Building, N. York.

Important to Railroad Companies, etc.



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, &c., by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Gauges**

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

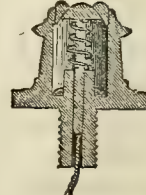
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

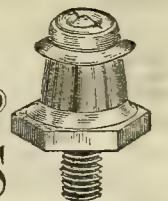
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**RICHARDSON'S**  
**PATENT**



**OIL**  
**CUPS**



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

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**No. 3 College Hall, Walnut St., Cincinnati**

**E. MENDENHALL,**  
**MAP, BOOK & PRINT SELLER,**

Has constantly on hand  
GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND  
OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers.  
Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES,  
**DRAWING INSTRUMENTS, &c.**

Publisher of the  
**Railway Map of the Western States,**  
In Sheet or in Pocket Case;

The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
The LARGE MAPS OF CINCINNATI, and HAMILTON CO  
Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
**MAPS OF EVERY DESCRIPTION.**



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:  
THURSDAY MORNING,.....SEPTEMBER 6, 1855.

OUR EUROPEAN AGENTS FOR THE RAILROAD RECORD ARE  
MESSRS. ALGAR & STREET, of the London Provincial  
and Colonial Newspaper Advertisement Office.  
No. 11 Clement's Lane,  
London, England.

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# Railroad Record

PUBLISHED EVERY THURSDAY MORNING,  
By T. WRIGHTSON & CO.

Office No. 167 Walnut Street,

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## MONTGOMERY AND PENSACOLA RAILROAD.—

We have the pleasure to state that Col. J. B. Ives, our Railroad contractor arrived in this city on Sunday evening last, and has communicated the gratifying intelligence, that he has secured the subscription of the New City Company, of one hundred thousand dollars, provided that the present subscription of seventy-five thousand made by our citizens be increased to one hundred thousand.

We hope it does not require a word from us to urge the immediate subscription to be made: every subscriber should be willing to double the amount of his present subscription, in order to secure the building of the road. This is the last opportunity that perhaps we will ever have of securing this great enterprise; and we should go to work with renewed energy and confidence in ourselves, that we can and will accomplish it. The absence of the President of the Company prevented the Board of Directors from executing the contract with Col. Ives; but as he is expected to return in a few weeks, the delay will not be long. We hope early in the fall that the necessary arrangements will be made for a commencement of the Road.—*Florida Dem. Aug. 16.*

VOL. III.—No. 28.

## THE DES MOINES NAVIGATION AND RAILROAD COMPANY—SALE AND VALUE OF PUBLIC LANDS.

We have before us the First Annual Report of this Company, prepared, as we believe, by W. J. McAlpine, Esq., the consulting Engineer. This document is a valuable one, not merely for an account of the affairs of the Des Moines Company, but for much valuable information it contains.

The Des Moines Company, like the Illinois Central, has fallen heir to one of the vast government grants, which illustrate so well the equality and justice with which our government is administered. Three or four great Railroad Companies have received tens of millions of dollars from the government, while any sort of grant, or favor is refused to all the others! Let this pass. The Des Moines Company are not to blame for this. It is their good fortune. Their sagacity has enabled them to perceive a mine of wealth, which the government had thrown away upon the State of Iowa, and Iowa now bestowed upon them. The substance of the grant is this. The United States Government granted the alternate sections, five miles in width, on each side of the river Des Moines, to the State of Iowa, conditioned to make the river navigable by Locks and Dams. The State of Iowa commenced the work, and after spending considerable money, granted their right to the lands, with the tolls and rents to be collected from the Locks and Dams, to this company, composed mostly of New York capitalists. The lands now held by the Company are about a million of acres, situated in one of the most fertile regions of the United States. The locks and dams will also be profitable; so that from a table prepared by the Engineer, it appears that after a few years, the company will have returned all their capital, and have made heavy dividends. This is a golden prospect for them, and perhaps, it is entirely right to offer such temptations to secure the attainment of a great public object. As for the locks and dams, we have no great faith in them. They are unquestionably better than nothing; and the Des Moines river may be such a one, as is peculiarly adapted to such an improvement.

It is of the approaching exhaustion of the public lands—a thing heretofore little dreamed of—that we would now speak. Mr. McAlpine touches this subject very skilfully, and shows very clearly what we were well aware of, from our own investigations, that such has been the squandering of the public domain, that in a short time there will be a reflex action, and lands in the north-western States must rapidly rise.

The facts which he states, in relation to this subject, are valuable, and we shall quote some of them, by way of illustrating our own views.

In regard to the reflex action of which we spoke, the following facts will show that it has already commenced, viz: the Illinois Central Railroad Company has, in the last year, sold 288,055 acres at \$8 29 per acre, (average), and the last sales were at \$14 15. These lands were wild lands, and it is evident this high price is not to be credited wholly to the effects of the Railroad.

Again, the sales of the University lands of Iowa, were at an average of \$8 per acre.

Now, if we look to the actual cause of this high price of wild land, we shall find it in another fact, which is fully and fairly stated by Mr. McAlpine in the following paragraph:

“On the first of July, 1853, there was but forty millions of acres of the public lands unsold east of the Mississippi, which included the refuse lands of Ohio and Indiana, and the swamp and refuse lands of Michigan, Wisconsin and Illinois.

“The rapid sales of the public lands since that date, and especially those made under the graduation bill, have probably exhausted these lands so much, that after the expiration of two or three years there will not remain open for entry any desirable lands east of the Mississippi.

“There were upwards of twenty-two millions of acres of the public lands disposed of in 1854, in the whole Union, of which over seven millions were sold for cash, (more than two and a half millions being in the Free States east of the Mississippi;) three and one-half millions were entered by land warrants, and eleven millions were taken by the States, under the swamp act. In 1855 there were fifteen millions of acres sold for cash, and probably an equal amount disposed of by land warrants and State grants.

“For the same reasons, all of the most desirable lands of Iowa, on the Mississippi slope will also be taken up within the next year or two.

“The only public lands which will then be open for entry in the Free States, will be the small quantities lying in the western interior of Iowa, Minnesota, and Wisconsin, and those of Nebraska, lying back from the Missouri, which, at government prices, will be far less desirable to the settler, than the rich and well located lands belonging to this Company, at the prices at which they have been valued.

“These lands situated in the Des Moines valley, which has been long known as the “garden of the west,” are more fertile than the best portions of Indiana and Illinois. They are beautifully located with no low or waste places, but rolling and undulating throughout, and well supplied with fine streams of pure, clear and quick running water.”

In addition to these facts, it must be recollected, that west of the Mississippi, there are no new States containing desirable lands, except Kansas, Nebraska, and Minnesota.



Nearly all of New Mexico, Utah, and California, are unfit for arable cultivation. It follows, then, that in a few years the wild lands in the hands of Railroad Companies, of speculators and States, will rise rapidly in value. Nor is this all. This reflex tide of settlement will turn back on the states of the Ohio Valley, and increase immensely the value of lands in the older states. In fact, we are rapidly reaching that point obtained by the older nations, when the people must be contented with the possessions they have, and learn to cultivate them better. Mr. McAlpine says:

"As has been before remarked, the desirable lands east of the Mississippi, have been chiefly occupied, and hence it may be said, that for the great army of settlers, who are annually marching westward, from the more populous districts of the east, and whose ranks are swollen by foreign immigration and accessions from the earlier settled of the Western States, there is no resting place until the Mississippi is crossed.

"West of a belt of land, less than two hundred miles wide, which lies beyond the Missouri river, and north of the 35th parallel of latitude, is a desert more than five hundred miles across, which is unfit for aught else than the grazing of wild cattle, and hunting grounds for the roving Indian, and beside its sterile soil it is so far removed from water navigation, that it can never have any agricultural value.

"This desert waste, forms a barrier to the further progress westward, of that great flood of immigration which is pouring down from the Alleghany Mountains, upon the Mississippi plateau. The reflux of this great migratory wave, must subside on the unoccupied fertile lands between the Missouri and Mississippi rivers."

#### RAILROAD ACCIDENT IN NEW JERSEY.

The public mind has again been startled by the occurrence of another of those terrible and heart-rending calamities, which inflict blows as severe and distressing, as they are sudden and unlooked for. A long and well filled train of passenger cars on the Camden and Amboy Railroad, having left the Burlington station in advance of the arrival of the train coming in an opposite direction, which was behind time, was backing to Burlington again, and coming in contact with the horses of a carriage, was thrown from the track. Twenty persons were killed, and seventy-five others injured. For extent of damage done, and wide spread distress inflicted on the community by railroad traveling, this calamity has had but two equals on this continent, one at Norwalk, and one in Canada. The daily papers have given, with sufficient clearness, the terrible and distressing details. We, therefore, omit them. But such accidents as these, teach a lesson that

may be learned with profit by other roads at a less cost than the fearful loss of life and property that has attended this one. The mangled dead at Burlington call, in tones not to be misunderstood, for reforms throughout our land, and they will do well who heed the call.

There are never wanting those, who would fix *all* the blame of such a calamity on the unfortunate individuals whose positions seemed to make them the authors of the mischief, and in far too many instances this fearful responsibility cannot be thrown off. But we believe that there is something to be done in such cases as these, beyond fixing the blame on individuals alone. There are causes beyond them which pervade the whole system in the country, and it is to these causes that accidents should be primarily attributed.

What then were the circumstances of this accident, and how may a repetition be avoided? The train from Philadelphia arrived at Burlington on time, and should here have met the down train from New York. But this train was behind time. The up train waited for ten minutes, and as the other did not appear, moved on. After proceeding between two and three miles, the down train appears in sight, the engine is reversed, the brakes applied, and the up train begins to recede; there is a switch close by, but the train moves back toward Burlington. As they are now behind time, and becoming more so every moment, the engineer runs moderately fast; the rate is variously stated at twelve to thirty miles an hour. They have run back from one and a half to two miles, when, without any indication of danger, a jar is felt, the conductor attempts to pull the bell rope, the rope is out of order, and in a second more the train stands still; the damage, whatever it is, is done, and no one in charge of the train is aware either of its extent or the cause to which it may be attributed. The conductor supposed he had discharged his duty, when he placed himself on the platform between the baggage and first passenger car. The engineer was also at his station, and on the lookout; and yet, neither saw the danger. To understand the fatal mistakes of this case, we must observe that the accident was caused by the attempted crossing of a carriage, at a point where neither road was in distinct view of the other. The carriage was approaching the railroad at the rate of nine or ten miles an hour. It was not, therefore, under the control of the driver to stop at a moment's warning.

It is evident that the first great mistake in this fearful calamity, is one, that we regret to say, is too frequent in our country, an unprotected highway crossing. But this is not all: not only is the crossing unprotected, but it is also obscured from view, a corn field extends to the point of the triangle between the two

roads. This mode of crossing railroads by highways, so palpably wrong, that it has not even a shadow of defence, is not only common, but too frequently hidden by trees, fences, corn fields, buildings, etc., which prevent view, and impede the transmission of sound, and form a sort of trap from which, under peculiar circumstances, what is considered ordinary care will afford no safety.

The next great mistake in this case is also one which is too common. Both the bell rope and the brakemen were in the wrong place. The bell rope ran not through the cars, but over the top of them; and hence, when the conductor attempted to pull it, he could not reach it. It is also quite probable that the rope in this case, instead of being fastened to the rear end of the rear car, was fastened to the front end of the rear car. In that case it was the whole length of a car from the persons who could first give the alarm. Had the rope passed through the cars, even if there had been no brakeman on the rear end of the car to give the alarm, it is quite probable that some passenger would have done it. The brakeman too is not known to have been in place, it is quite probable that he was between the two last cars, instead of at the extreme end of the train.

Again, even were there a brakeman at the end of the train, that was not enough. The engineer and conductor are the responsible persons on a train, and when the train is running back at the rate at which this was going, and for the distance this was expected to go, no considerations should have induced the conductor to be anywhere but at the end of the train. The engineer could not leave his post, and hence, the responsibility must rest on the conductor.

Another feature in this calamity, and one which pervades the actions of our people too generally, was the reckless driving of the carriage towards the crossing, at a rate which was beyond the control of the driver. The driver of the carriage could not see the track, and he yet approached at the rate of nine or ten miles an hour. The disposition that we see indicated here is to make the train responsible for keeping out of the way of the carriage, instead of the carriage being responsible for keeping out of the way of the train. Drivers of vehicles in their selfish disposition to throw off trouble or responsibility, forget that a railroad train, which carries hundreds of persons, has more right to accommodation, than a carriage which at most contains half a dozen. It is less under control. Yet such is the stubborn wilfulness of drivers, that they persist in what they suppose their rights, and the result is often serious, although rarely as much so as in this instance.

Now, what should be the effect of this calamity? To heap blame and censure only on the conductor, or the driver of the carriage?



By no means. They were each to blame and the responsibility for them is fearful. But in acting as they did, they only did what they and others had often done before, and met with no mishap. And it is quite probable if any conductor in the land, before this accident, had been asked what course of action he would have pursued under those circumstances, he would have answered exactly what this conductor actually did. Eleven years of service in the capacity of conductor, must certainly warrant the belief that this person was supposed to be a careful and competent man. The want of sufficient precaution in both conductor and driver, should be censured. But this is not the root of the evil. The main cause of it lies in two things, unprotected highway crossings, and single tracks. Its secondary causes were defective arrangements as to times of meeting, bell ropes, position of responsible persons, etc.

No railroad of sufficient business should be without a double track. No highway should cross a railroad unprotected. If such crossing appears unavoidable, there should *always* be a clear view, up and down the track. If these precautions were observed, fewer accidents would occur.

A bell rope should always extend the *whole* length of the train *inside* the cars. No consideration of "safe enough" should induce a neglect of this precaution. There should be a most perfect understanding as to *time of meeting trains*. If one train is behind time, it should be most perfectly understood which of the two should wait for the other, and in no case should a train leave a station when it may expect to meet another before arriving at the next station. This rule should never be violated.

Proper and responsible persons should always be on the look out at the front of the train in the direction in which it is moving, and trains should never be backed at a high rate of speed.

The fearful destruction of life caused by this accident, while the train was backing, would most probably have been much less, if it had been moving forward. When moving forward, the great weight of the engine renders it more difficult to be thrown off the track, and if thrown off, the less weight of the cars behind, renders the danger of crushing much less than when the greater weight is pressing on the less. As it was, the engine pressed forward with its natural momentum, which as much greater than that of the cars as its weight exceeds theirs.

In conclusion, we would urge upon railroad managers the early adoption of such precautions as are plainly pointed out by this fearful calamity. They are urged upon them by every consideration of humanity and prudence, and they will be greatly recreant to their duty who neglect to adopt them.

ST. JOSEPH'S VALLEY REGISTER.—The office of the St. Joseph's Valley Register at South Bend, Indiana, was we regret to learn consumed by fire on the night of the 15th of August. The Register is an excellent weekly paper, and for ten years has supplied its neighborhood an excellent sheet. The proprietors lost their power press and nearly all their type and other materials. Having been scorched by the fire once, we know how to sympathize with our friends of the Register in their misfortune, and trust their friends will add sufficiently to their subscription, to enable it to make up its losses.

#### GEOLOGY OF THE RAILROADS.

We learn that Mr. David Christy, late of Oxford, but now Professor in the American Female College at Glendale, has commenced a series of examinations of the geology of the railroads radiating from Cincinnati. The idea originated with one of the Conductors of the Cincinnati and St. Louis Railroad, who, upon noticing that the Professor, in passing over that road recently, left the cars at all the stopping places to examine the strata of the rocks and collect specimens, suggested that the Superintendent, if called upon, would readily grant a free ticket for such an object, entitling Mr. C. to travel from station to station, on either the passenger or freight trains, as convenience might require, and thus allow him ample time to make full examinations. We learn also that the officers of the Cincinnati, Hamilton and Dayton Railroad, on hearing of the project, at once issued the ticket. The advantage of a thorough geological survey is too apparent to need illustrating.

Such a series of examinations, published in our city papers, which, we learn, is his plan of issuing them, would enable the young amateur geologists of Cincinnati to know where they could prosecute their studies to best advantage.

#### CENTRAL OHIO RAILROAD.

The annual meeting of the Stockholders of this road took place at Zanesville, on Aug. 28. The following are the Directors, as elected, for the ensuing year: ELIAS FASSETT, CHAUNCEY BROOKS, D. W. DESHLER, J. W. BALDWIN, GEO. B. WRIGHT, SOLOMON STURGES, SAMUEL CLARK, S. R. HOSMER, GEORGE JAMES, ISAAC W. HALL, N. L. WHITTEMORE, JOHN DAVENPORT, and JAMES D. WRIGHT.

At the close of the election, the Board of Directors met and organized by electing the following gentlemen to the offices named: ELIAS FASSETT, *President*; D. W. DESHLER, *Pres't pro temp.*; S. R. HOSMER, *Treasurer*.

The following gentlemen were then selected as the *Executive Committee*: E. FASSETT, S. STURGES, GEO. JAMES, S. R. HOSMER, SAMUEL CLARK and J. W. BALDWIN.

In the offices of Superintendent and Secretary there was no change: ISAAC H. SOUTHWICK, *Superintendent*, and WM. WING *Secretary*.

The Board also authorized the Executive Committee to contract for the extension of the road from Bellair to Kirkwood at as early a day as the right of way can be obtained on reasonable terms.

## Railroads.

#### FREMONT AND INDIANA RAILROAD.

The annual election of officers of this road took place on July 25th, 1855. The old officers were mostly re-elected as follows: *Directors*—L. Q. Rawson, James Moore, Fremont; C. W. Foster, Fostoria; D. J. Cory, S. Carlin, Findlay; B. Metcalf, Lima; Wm. Sawyer, St. Mary's; L. Q. Rawson, *President*; B. Amsden, *Secretary*; Wm. Taylor, *Treasurer*; S. Medbury, *Chief Engineer*.

The certificate of incorporation authorizes the Company to build a Railroad from Fremont, in Sandusky county, through Findlay, in Hancock county, to the west line of the State of Ohio, in the county of Darke. Soon after filing the certificate of incorporation, the company appointed Mr. Alvin Brooks *Chief Engineer*, who immediately organized a corps of engineers, and went with them in person during the preliminary surveys and final location of the line from Fremont, in Sandusky county, to Lima, the county seat of Allen county. In consequence of bad health, Mr Brooks left the line in the fall of 1853. During the winter of 1853-4, the work was conducted under the charge of Mr. W. B. Gaw, as resident engineer, during which time, and under whose charge, the preliminary surveys between Lima and Union city were made.

In April, 1854, the Directors applied to Mr. S. Medbury, of Columbus, Ohio, to take the appointment of *Chief Engineer*. Mr. Medbury accepted the appointment, with the understanding that he had other roads under his charge, which occupied a part of his time, but said he would review the plans, and personally go over the line and examine the work as often as necessary to a full understanding and direction of the same. The directors pay Mr. Medbury the following compliment: The reputation which Mr. Medbury has acquired, in a long series of years, as *Engineer of the State*, in building her canals, and more recently for several Companies in Ohio and other States, as *Chief Engineer* in building several railroads, admonish us that no saying of ours would add to his reputation. We, therefore, only say, we are gratified in being able to state that we have availed ourselves of his services, and he has had charge of the work since April, 1854. The line of our road passes through the counties of Sandusky, Seneca, Hancock, Allen, Auglaize, Mercer, and Darke, and terminates at Union City, on the west line of the State. Its whole length is 120 miles, and in its entire distance deviates so slightly from a straight line, that for all practical purposes it is an air line railroad.

Starting from Fremont, it runs in a south-westerly direction over a very level and beautiful country, passing through the flourishing towns of Fostoria, in Seneca county, Findlay, the county seat of Hancock county, Shannon, in Allen County, and St. Mary's, in Auglaize county. The character of the country is such as to admit of very easy grades, a large portion of the distance being under ten feet per mile, and but few points where it exceeds twenty feet per mile, and in all cases where they are above that, they are so short as to present no appreciable obstacle to the running of trains of freight or passengers, loaded or a twenty foot grade. The line of the



road passes through the country in a direction to avoid the crossing of any streams requiring the construction of bridges, excepting at four points, viz: Blanchard fork, at Findlay, Hog Creek, at Lima, Auglaize, between Lima and St. Mary's, and the St. Mary's, at the town of St. Mary's, either of which may be passed by a single span of 150 feet or less; the remaining streams, of which there are but few, requiring small culverts only. Owing to this fact, and the uniformly plain and even surface of the country, the cost of construction is very small, and when completed the cost of repairs will be correspondingly small, the road being entirely free from danger by floods.

The report proceeds to say: the right of way, one hundred feet wide, is nearly all secured between Fremont and St. Mary's, and the few pieces not yet secured, are in process of adjustment. It is generally admitted that the location and construction of our road has already raised the price of land on its line and in its vicinity, more than twenty-five per cent. above its previous value; and it is worthy of comment that we have met with many liberal men, who have either donated the right of way, or sold it at a nominal price, with a double view of aiding us in our enterprise, and at the same time adding to their own wealth by increasing the value of their lands to many times the amount of the damage. On the other hand we have met with some few exceptions to this equitable mode of reasoning. We refer to that small class of miserly beings who grasp at every penny, without regard to present or prospective increased value, and who say that every corporation, and every public improvement is a curse, and demand such exorbitant prices, that no settlement can be made short of all the formalities of a legal proceeding. And yet we have the consoling reflection that we have encountered less difficulties, and paid less price of right of way, than most other Railroad Companies for a like length of line, and through a country as well settled and improved as ours.

Soon after the organization of the company, a contract was made with Robert M. Shoemaker, Michael Shoemaker and Henry Doolittle, to construct that part of the road between Fremont and Lima, by the terms of which contract they were to do all the work and furnish all material, including a T rail weighing not less than fifty-six pounds to the yard, ballasting, side tracks, turn tables and one hundred and twenty-five thousand dollars worth of machinery, which contract amounted in the aggregate, to about eighteen thousand dollars per mile. It was also agreed, that during the progress of the work, bonds should be issued to the amount of ten thousand dollars per mile, bearing interest at the rate of seven per cent. per annum, which bonds were to be secured by a single first mortgage on the road and its income, franchises and fixtures, and that these bonds should be used exclusively for the purchase and transportation of iron rails, chairs and spikes, machinery, etc.; and when used were to be chargeable to contractors, as payment on their contract, at eighty-five cents on the dollar; the residue of their payments were payable one-half in cash, on the estimate of the Engineers, and the residue in stock and second class bonds of the company.

More recently a contract has been entered into for constructing that part of the road west of Lima on terms similar to the above. Taking these contracts for a basis and adding

thereto the cost of right of way, engineering, and contingencies, it will be seen that the entire cost of the road, including ballasting, side tracks, and partly equipped will be about twenty thousand dollars per mile.

The first division of the road between Fremont and Findlay, a distance of thirty-six miles, is now ready for the iron, except some light work which can be done during track laying; also, on the second division between Findlay and Lima, and that part of the third division between Lima and St. Mary's, a distance of fifty-two miles, the work has been nearly all sub-let, the sub-contractors are now on the line at work, and several sections on the second division being already done, contractors say that they will have it in readiness for track laying as far as St. Mary's by the first of June next.

The following is the exhibit of the financial condition of the company.

Whole amount of stock subscribed, viz:	
Stock Subscribed and paid in Real Estate.....	\$164,888 10
Cash subscribed.....	402,811 90
Advanced by Hancock Co., (reimbursable).....	151,150 00
	\$718,850 00
TOTAL EXPENDITURES.	
Engineering.....	\$ 10,335 91
Right of way.....	32,694 32
Construction and contingencies.....	165,354 39
Total investment in road.....	\$208,384 62
Balance.....	510,465 38
	718,850 00
ASSETS.	
Real Estate.....	\$156,088 57
Due from subscribers.....	285,940 23
Securities advanced by Hancock county.....	135,650 00
	577,678 80
LIABILITIES.	
Bills Payable.....	\$15,751 93
Due on unsettled accounts.....	3,157 22
Construction bonds secured by real estate, sold.....	21,000 00
Due to contractors in stock and second class bonds.....	27,304 22
	67,213 42
	\$510,465 38

The authorized amount of capital stock is two million dollars. The total amount of stock subscribed is \$567,700 00. The total amount expended is \$208,384 62, leaving a balance of \$359,315 38. Add to the last amount \$151,150 00, advanced by Hancock county, and there is applicable to carrying on the work, a balance of five hundred and ten thousand four hundred and sixty-five dollars and thirty eight cents. The amount of road built and ready for iron is equal to 40 miles. This sum of two hundred and eighty-four dollars and sixty-two cents, includes not only the amount paid to contractors, but the entire expenses of the company up to this time.

With regard to the difficulties of the past year, the directors say: notwithstanding our favorable position, we must say to you that the amount of capital stock subscribed is less than it should be for the length of the road we are building; and if it had not been located on grounds more favorable, perhaps, than any other road in the State and had we not been thus fortunate in securing the services of able and efficient contractors, we should have been compelled to have suspended the work during the financial embarrassments of 1854. But with these fortunate circumstances, and prompt payment from the subscribers, the estimates have been paid and the work has progressed. The policy adopted by the Board, has been to proceed with the work cautiously and safely, creating no indebtedness but such as we could at once make provision for the payment of. By this

course we are now satisfied that with our present means, the company will be able to carry on the work and prepare the road for iron to St. Mary's, as heretofore stated. It is, however, true that the capital stock is small, and must be increased, to enable us to prepare that part of the road west of St. Mary's for iron—to make final payments to our contractors for ballasting and finishing the road—to build station buildings, etc. And for these purposes we most urgently recommend the stockholders to increase the amount of subscriptions to the capital stock.

The company propose to execute a mortgage on their road, with the income and franchises, to secure the payment of their bonds, to be issued to an amount not exceeding ten thousand dollars per mile, to raise money to purchase and transport iron rails, chairs, and spikes, and to pay for laying track, etc., which will be a first lien on the road. These bonds being a first and only lien on the road, and not to be issued to a greater amount than ten thousand dollars per mile, give the bond holders, as security, a finished road, unembarrassed with debts, through one of the most productive portions of our State, for the small sum of ten thousand dollars per mile.

The company have received in payment of subscriptions to the capital stock, lands to the amount of \$164,888 10, and the directors have executed a special mortgage on \$62,500 worth of said lands to secure the payment of bonds issued to the amount of \$50,000, and propose to execute another mortgage on like amount of lands, to secure a further issue of bonds to the amount of fifty thousand dollars. These lands being taken at cash prices, and having been largely increased in value by the building of the road, will give ample security to the bondholders.

#### NEW ALBANY AND SALEM RAILROAD.

At the last annual meeting of this company, the following gentlemen were elected Directors.

DIRECTORS.—James Brooks, J. J. Brown, Randall Crawford, Wm. Plummer, Walter Mann, New Albany; John Gordon, Salem; Joseph Rawlins, Bedford; Thomas Smith, Bloomington; Joseph E. Goss, Gossport; Jacob Daggy, Greencastle; I. C. Elston, Crawfordville; Geo. Talman, D. D. Williamson, New York.

James Brooks, President; Geo. Lyman, Secretary.

C. Knowlton, Superintendent; Blaine Marshall, Col. John McCrea, Assistants.

The following is the report for the year.

There are many difficulties to be encountered in opening a New Railroad in this country. Our roads are usually built without sufficient means to finish them in good order for business, before they are opened for traffic. The necessities of the Company generally require the managers to commence using the road and making it productive, as soon as possible after the iron is laid. In addition to this necessity, the people along the line of the road, are generally anxious to avail themselves at the earliest possible day of the facilities offered by the new road for the transportation of freight and passengers. Under such circumstances, there appears to be but one course left for the managers, and that is to put their trains to work as soon as



possible, and finish up the work as fast as their means will permit after opening the road.

The inconvenience of this state of things, was felt with peculiar force by the directors of this Company. About the first of July last, the track laying was finished on the line from New Albany to Michigan City, 228 miles. About 100 miles of this track had been put down within a very few months, on work just graded. Many of the embankments were unfinished, the track layers being obliged to put down the track as soon as the embankments were wide enough to receive it, leaving the balance of the fill to be made by the trains after the track was laid. Some of the cuts had been left in a similar manner, which required widening; in two instances heavy rock excavations were unfinished, and the track had to be put down temporarily outside the cut, and use it until they could be completed. Much of this 100 miles of track was unballasted.

If the company had been in possession of means to go on and finish the work at once, it would have been economy and good policy to have used all their rolling stock for the three or four months after the track was laid, in finishing the construction of the road, and putting it in good condition for business, and not have opened it for traffic until this was all done; but this course, under the circumstances, was out of their power. It had been their misfortune to get to this stage of their work out of means, with considerable floating debt hanging over them. The work done for the last eighteen months previous to this time having, in consequence of the great increase in prices of all the staple articles of consumption, cost much more than was estimated, had increased the costs of the whole work much above the original estimates, and cut short our means, when at one time we thought we had ample provision made for the whole work, and which, under the state of things that existed at the time the estimates were made, would have finished the road and put it in successful operation. We found ourselves in this unpleasant situation, at a time when Railroad securities were in such bad repute that it was very difficult for any except old works of established credit, to get money, without submitting to terms which were almost ruinous, and should not be submitted to under any ordinary circumstances.

Under such circumstances, the directors decided on opening the road, and submitting to the inconveniences of using for a time an unfinished work and earning the money to finish it and get it out of its difficulties. The result has shown that it was the only prudent course which could have been taken at the time.

The rolling stock, at the time of the opening of the road was about sufficient to have done the business which offered, had the road been finished and in good order. This had to be divided between the transportation of freight and passengers, and the construction, some six or seven trains having been kept most of the time at the last named work since the opening of the road in July last. The consequence was, that with the remaining power we have not been able to do the work that offered, and the Road has suffered some in reputation by this inability to carry off promptly the produce of the country—shippers usually being unwilling to make any allowance in such cases, thinking that a Railroad ought to carry off at once all that is

brought to it, no matter what the circumstances may be.

Could we have used all our power on a finished track; for the regular business of the road, we could have earned a much larger amount of money, and done it much more to our own satisfaction and that of our customers.

We hope soon to be able to have the road in a condition to do all the business which is offered which will not only be more satisfactory to the community, but will very largely increase our receipts.

The result of the year's business has satisfied the board that there is a very heavy local business on the line, which will be fully equal to any estimates heretofore made, and that with the road finished and furnished properly, it cannot fail to be profitable to all interested. Under all the difficulties named above the receipts for the year have come up to the estimates.

Below will be found a statement of the receipts for each month with the expenses and nett earnings for the year.

Freights,.....	\$295,123 79
Passengers,.....	338,653 76
Mails,.....	22,050 00
Total,.....	\$645,827 57
Less Expenses, Repairs of Track, Machinery, Fuel, Officers, Salaries, Station and Train Services, &c., &c.,.....	\$274,425 30
Nett Earnings,.....	\$372,402 25
Deduct interest on Bonds, &c.,.....	315,276 89
Nett after paying interest and expenses,.....	\$56,125 36

By the above statement it will be seen that the earnings of the road from the 4th of July, 1854, to the 30th day of June, 1855, were \$642,827 55, and that after paying expenses and interest the nett earnings are \$56,125 36, say 2 1-6 per cent on the capital stock. The nett earnings of the road though they may appear small, are quite as large as could have been expected under the circumstances.

The work of finishing up the track and putting the road in order for business has steadily progressed. With the exception of a short time during the winter a large force has been kept constantly employed on the line. The rock cuts which have been left unfinished and passed by a temporary track have since been finished and the track laid through them—most of the unfinished earth cuts and embankments have since been completed. The ditching and ballasting the track are progressing rapidly, and a strong force is yet at work. I think by the time the fall rains set in, we shall have our work so far done as to be able to draw off the forces from this kind of work.

At the present time the track is in quite as good order as any Railroad I have ever seen, which has not been longer laid than this. The trains have been for sometime past making their time with great regularity.

Originally some 45 miles of the track in the south end of the road was laid with flat bar iron, some 31 miles of this has since been relaid with a heavy T rail, leaving about 14 miles which is now being relaid.

A contract has lately been made with the Crescent Iron Manufacturing Company at Wheeling for the necessary iron to finish relaying the 14 miles, after using the balance of the iron now on hand. A party of track layers are now engaged relaying this part of the line.

As the Directors felt obliged to go on and finish up the road and put it in a condition to

make it productive, they were obliged to use money faster than the earnings of the road and collections on the stock subscriptions would do it. In order to do this and pay off the floating debt of some \$300,000 00 which was pressing them at the time—they, in January last, ordered the issue of \$1,000,000 of seven per cent bonds, secured by a third mortgage on the road. The bonds were issued on the first of February, 1855, payable, principal and interest, in the city of New York. Interest payable semi-annually, principal payable in 30 years. To provide for the redemption of the debt of the Company, the Board ordered \$12,000 per year to be set apart as a sinking fund, to be invested annually with the accruing interest in this last issue of bonds, and \$70,000 per year to be invested with the accruing interest in the bonds heretofore issued. The last named amount, however, is not to be paid over for the next two years provided the Company should find it necessary to use their earnings for the purpose of finishing and equipping their road.

These bonds were offered to the Stockholders at par with the privilege of paying one half in cash and one half in the capital stock of the Company at par. \$418,000 of these have been taken up in that way, and \$26,400 sold to other purchasers. The remainder of them will be disposed of as the wants of the Company may require.

In January last a statement of the condition of the Company was published with a balance sheet from the books, showing its assets and liabilities at that time. Below will be found a statement of the assets and liabilities, July 1st, 1855.

#### *Statement of the Assets and Liabilities of the N. A. & S. R. R. Co., July 1, 1855.*

##### ASSETS.

Construction of Road, including Rights of way, Incidental Expenses, Engineering, Discount and Interest on Bonds, etc., etc.,.....	\$5,712,446 13
Depots, Water Stations, Machine shops, machinery, engine houses, etc.,.....	296,603 89
Locomotives,.....	251,799 77
Cars—freight, passenger, and baggage,.....	310,653 83
Real Estate,.....	71,655 73
Total permanent assets,.....	\$6,643,189 35 6,643,189 35
Cash,.....	\$ 10,356 79
Due from operating department	60,392 77
Fuel on hand,.....	25,000 00
Due from P. O. Department,....	6,512 50
Lands not necessary for use of Road for sale,.....	37,278 10
Material and unfinished work in shops,.....	75,974 23
Balance due from agents and others,.....	37,267 44
Balance due on stock subscriptions,.....	47 15
Montgomery County Bonds,....	113,476 48
Capital Stock of the Company rec'd in payment for bonds,...	100,000 00
7 per cent. 3d Mortgage Bonds on hand and unsold,.....	209,000 00
	555,600 00
	1,229,905 46
	\$7,873,094 81

##### LIABILITIES.

Capital Stock,.....	\$2,535,120 93
Ten per cent. Bonds due \$100,000 per annum from 1st April 1859, to April 1st 1863 inclusive,.....	\$ 500,000 00
Seven per cent. Bonds issued by the Crawfordville and Wabash R. R. Co., due June 1st, 1863,.....	175,000 00
Eight per cent. Bonds \$125,000 due May 1st, 1864, and \$200,000 per annum from May 1st, 1865, to May 1st, 1875,...	2,325,000 00
Seven per cent. 2d Mortgage Bonds, due June 1st, 1873,...	1,000,000 00
Seven per cent. 2d Mortgage Bonds, due February 1st, 1855,.....	1,000,000 00



Seven per cent. Bonds issued to Contractors not secured by Mortgage Convertible...	16,170 00
	5,016,170 00
Bills Payable and balance due operatives.	237,676 93
Due on open accounts.	28,001 59
Balance to credit of Profit and Loss.	56,125 36
	\$7,673,094 81

By comparing the above Statement with that published January 1st, it will be seen that the expenditure for the last six months in permanent assets, and in the settlement of claims have made the following difference in the above statement and that of January 1st, 1855.

#### INCREASE OF ASSETS.

Added to construction account.	\$193,778 70
Building Depots, Water Stations, etc., etc.	26,844 60
Locomotives.	18,142 90
Cars.	8,575 00
Real Estate.	369 80

Total to permanent assets.	\$247,711 00
Increase of other assets as per statement.	842,071 78

\$1,089,782 78

#### INCREASE OF LIABILITIES.

Capital Stock by January settlement, of Interest, Dividends, etc.	\$ 86,765 84
Issue of seven per cent. Bonds.	1,000,000 00
Increase of balance to Profit and Loss.	28,454 03

	\$1,115,219 87
Less decrease of bills payable.	25,437 09

\$1,089,782 78

It will be recollected that in the last Annual Report the business of the Road from July 4th to January 1st, was estimated at \$300,000, or at the rate of \$600,000 per annum. The business of the year 1855 was estimated at \$800,000, and of 1856 at \$1,000,000, with a corresponding increase for some years. I have seen nothing yet to induce me to think the estimate too high.

With the loss of the crop of last year, and the consequent stagnation of all kinds of business, our receipts for the first six months exceeded the estimate some \$20,000. The first six months of this year have not quite come up to it, which is partly to be attributed to the depression in trade, caused by the loss of last year's crops, and partly to the fact that the last half of the year the business usually greatly exceeds the first, and it may yet make up enough to make that estimate good. I am satisfied had our crops been as good as usual last year, that the business of the Road must have greatly exceeded the estimates.

There can be no good reason why in a short time the stock of the Company should not command as good a price in the market as any road in the State.

The work is favorably situated for a heavy business and cannot fail to do it, now that it is getting through with the difficulties which have surrounded it, and getting in a position to do the business that offers.

#### NOTH-EAST AND SOUTH-WEST ALABAMA RAILROAD—ESTIMATES.

Through the kindness of the publisher, M. D. J. Slade, of Tuscaloosa, we have received the "Report of the Chief Engineer of N. E. & S. W. Alabama Railroad," which is full of important matter connected with the construction of the above railroad. We shall publish the leading questions discussed in this able report for the information of our readers. Particularly is Chattanooga interested in this road, and as we have now tangible calculations and estimates upon the expense and value of the road, we trust our citizens, and those interested, will carefully inform themselves, that they may act in concert in promoting its best interests. To-day we copy the estimates of the probable costs for the

entire line, from the southern junction with the Mobile and Ohio Railroad to Chattanooga, complete and equipped:

Graduation.	\$1,948,000 00
Bridging and Masonry.	304,000 00
Cross-ties.	300,000 00
General management, including salaries of officers, agencies, hire of hands, instruments and general outfit.	180,000 00
Iron railing, (27,000 tons), spikes, bolts, blocks, plates, washers, and laying track.	2,250,000 00
Rolling stock, including twenty-five engines, fifteen passenger, sixteen mail and passenger brake cars, 160 stock and platform, and 200 box cars.	450,000 00
Stationery, printing, depot grounds, right of way, ballasting, cattle guards, shafts, fencing, road crossings and signs, turn tables, mile posts, embankment protections, and contingencies.	300,000 00
Depot buildings, including engine and passenger houses, machine shops, wood and water stations, tanks, frames, castings, grading and laying turnout tracks.	290,000 00

Entire road, complete and equipped....\$6,622,000 00

#### Probable Cost of Graduation in the following Counties.

Sumter County, 27 1/4 miles.	\$252,000 00
Greene " 29 "	221,000 00
Tuscaloosa " 50 "	481,000 00
Bibb " 5 "	60,500 00
Jefferson " 45 "	188,000 00
St. Clair " 33 "	188,000 00

#### Probable Average Cost Graduation per mile per County.

Sumter County, Graduation per mile.	\$ 9,350 00
Greene " " " "	7,970 00
Tuscaloosa " " " "	9,620 00
Bibb " " " "	12,100 00
Jefferson " " " "	4,180 00
St. Clair " " " "	5,875 00

The grading in Mississippi will be similar to that of Sumter and Greene, and from Will's creek to Chattanooga, it will fall somewhat under \$4,000 per mile.

#### General Average per mile.

Graduation of the Entire Road per mile, about	\$6,620 00
Bridging and Masonry " " " "	1,050 00
Cross-ties " " " "	1,000 00
General management etc., " " " "	610 00
Iron Railing, etc., " " " "	7,680 00
Rolling Stock " " " "	1,500 00
Stationery, Printing, etc., " " " "	1,000 00
Depot Buildings, etc., " " " "	990 00

Average cost entire Road per mile, complete and equipped.....\$20,450 00

## Miscellaneous and Mechanical.

### MOSELEY TUBULAR WROUGHT IRON BRIDGE.

In company with several officers of the United States Army, we were present at a test of this bridge on Friday last. The principle of the bridge we have before described. Its main feature is the beautiful light arched tube of metal which supports the roadway. A cut of it may be seen in the advertisement of the company.

The model which we saw tested is four feet span; the rise of the arch is about 12 1/2 inches. It is a simple segment of a circle, the tubes are placed on each side of the roadway, and are triangular in form, being only one inch in lateral dimension. The whole model weighs but twenty pounds. The model rests on wooden abutments, some three or four feet high; the weight used in testing was pig lead; the pigs each weighed about 70 lbs. Fifty-eight of these were piled upon the structure, and not the slightest indication of deflection was observed. The porter, a man weighing about 170 lbs, was then directed

to walk over it above this weight of lead, and this was also done without any indication of jar or deflection. The parties present, including ourselves were perfectly satisfied, and expressed the conviction that double that weight could be put upon it with perfect safety. The huge pile of lead resting on the slight airy structure seemed almost fabulous.

For army purposes, this bridge from its lightness, facility of erection and capability of being packed in little room, has many and decided advantages. It will support with perfect safety, as has been shown both by models and the bridge in Covington, full twenty times its weight without deflection.

### CANADA—ITS PUBLIC WORKS—DEBT AND TRADE.

The inspector General of Canada has recently published a report of its present condition, embracing the state of its finances, the cost of its public works, and the value of its imports and exports. The following table, taken from the report, exhibits the cost of its public works:

	£	s.	d.
St. Lawrence Canals.	1,670,342	4	6
Welland Canal.	1,671,776	6	3
Chamby Canal and River Richelieu.	104,662	16	0
Lake St. Peter.	73,558	15	5
Burlington Bay Canal.	52,773	7	2
Ottawa Works.	145,998	15	1
Harbors and Lighthouses.	299,242	15	10
Montreal Harbor.	120,356	13	4
	419,599	9	2
Improvement of the Trent.	139,626	11	0
Roads and Bridges Upper Canada.	513,670	16	4
Roads and Bridges Lower Canada.	222,106	1	8
Roads and Bridges Lower Canada, Montreal Turnpike Trust.	50,750	0	0
Roads and Bridges L. C., Quebec Turnpike Trust.	38,882	0	0
	306,738	1	8
Provincial Penitentiary.	34,207	15	1
Miscellaneous.	174,914	0	0
	£2,307,864	17	8 1/2

The public debt of Canada in 1842, amounted to £1,411,239. From that time it gradually increased till 1851, when it reached £4,512,468. On the 31st of January last, it was £4,353,949.

In explaining the causes of the increase in the debt of the Province, Mr. Cayley says:

"The public debt of Canada, prior to 1842, fell short of a million and a half, it has since reached four and a half millions; the larger portion of the increase grew out of the loan effected with the British Government through Lord Sydenham, at the time of the Union, and was expended chiefly on the works just referred to during the year 1843, '44, '45, and '46. If the revenue under this particular head were to be taken as the gauge of the value of our Public Works, a very inadequate and erroneous opinion would be formed of the utility of which they have proved to the province. To encourage traffic, the rates, more particularly on the canals, have been kept at a very low figure, and for years these works were a source of outlay instead of revenue; for instance, the Rideau Canal, (constructed by the British Government and recently handed over to the Province,) has never met its annual cost of



management and repair, and at this moment does not cover 25 per cent. of it, and yet for years this canal was supplied with goods from Great Britain. To our canals and harbors, roads and bridges, which have rendered our millions of acres accessible to the settler, and brought the market of supply and demand to his door, may be attributed the rapid increase of our populations, the immense extent of new land yearly brought into cultivation, and the expansion of our income from £350,000 in 1842 and '43, to £1,300,010 in 1853 and '54."

The table of imports and exports extends back 14 years. The following are the respective values of imports and exports at the periods named :

Years.	Imports.	Exports.
1841.....	£2,694,160	Currency.....£2,217,166
1845.....	4,191,325	".....2,536,635
1850.....	4,245,517	".....2,900,438
1853.....	7,995,359	".....5,950,325
1854.....	10,132,351	".....5,754,797

The value of imports and exports have increased more rapidly from the year 1852, than ever before in the history of the Province. The imports for 1854 are double those for 1852, and the exports full fifty per cent. higher.

	1852.	1854.
Total Goods Imported.....	£5,071,623	£10,132,331
CHIEF ARTICLES.		
Wines and Spirits.....	58,269	203,142
Sugars.....	232,676	354,604
Cottons.....	774,191	1,569,087
Woolens.....	767,213	1,354,361
Iron and Hardware.....	789,009	2,017,777
Machinery.....	61,142	214,805
Silk.....	200,547	375,605
Pork.....	6,731	127,703

From the report we find that in four articles of consumption only, was there a decrease in last year's importations, as compared with 1853. In tea there was a decrease of 7 per cent.; in spices 11 per cent.; in cottons 3 per cent.; and in linen 8 per cent. Singularly enough, the greatest increase was in mess pork, and Indian corn; the former increasing from £15,159 in 1853, to £127,703 in 1854, or about 407 per cent.; the increase in the latter being no less than 187 per cent. In refined sugar the increase was 66 per cent.; in raw sugar 14 per cent. In such luxuries as fruits and wines there is also an increase indicative of an improvement in the means of enjoying themselves possessed by the consumers. In fruits the increase was 35 per cent., and in wines 45 per cent.

The exports of wheat and flour present some interesting features. The following are the figures :

	Wheat, Bush.	Flour, bbls.
1847.....	719,688	670,898
1848.....	535,062	660,624
1849.....	1,002,269	490,335
1850.....	1,205,029	650,439
1851.....	993,756	668,622
1852.....	1,883,598	703,624
1853.....	2,667,903	786,058
1854.....	1,442,677	651,400

The falling off in the year 1854, is proof of failure of crops. One fact that this table shows very clearly is, that the people of Canada do not increase their manufacturing facilities in proportion to their increase of productions and wealth. The increase in the

export of wheat is great and proportionate to the crops, while manufactured wheat or flour remains at about the average of several years past.

#### CAST STEEL MANUFACTURE.

The kinds of steel at present manufactured are—Natural steel, called raw steel, or German steel; Paal steel, produced in Styria by a particular method; cemented or converted steel; cast steel obtained by melting steel; and puddled steel, obtained by puddling pig iron in a peculiar way. In Germany, France, and Austria, with trifling exceptions, charcoal is the fuel used; the quantity, however, is very variable, depending in a great degree upon the dexterity of the workman; the consumption may, as a general average, be estimated at 240 bushels per ton of raw steel produced. The natural or German steel is produced direct from pig-iron, the result of the fusion of the spathose iron ores alone, or mixed in a small degree with the brown oxide, producing a highly crystalized metal, called speigle eisen, or looking glass iron, on account of the very large crystals it exhibits. Many of the foreign authorities advocate the use of gray pig-iron for the manufacture of steel, but Mr. Sanderson controverts that opinion and assigns strong reasons for considering that gray pig-iron is not by any means the best for producing natural steel, and for the same reasons he would not recommend the highly carbonized white iron, although it is now used both in Germany and France. In Austria, they have improved on the general continental process, by forming the metals into cakes, which are then piled edgewise in a furnace, covered with charcoal, and heated for 48 hours, by which process the carbon is very much discharged. By using these cakes in the refining, the steel is sooner made, and of better quality, and in the advice which Mr. Sanderson had given to the German steel makers, he endeavored to show that pig-iron could only be freed from its impurities while in a fluid state.

The raw steel, when produced, is sold to the steel refiners, who submit it to a process of welding, which will be found fully and lucidly explained in the papers. For very fine articles the refining is increased by several doublings, but this is not carried, at present, to such an extent as formerly, since cast-steel is substituted, being in many cases cheaper. The average price of the refined natural steel sold in boxes is \$100 to \$120 per ton; in bundles \$85 to \$100; that of the raw steel sold to the refiners \$75 to \$90 per ton: while the refined steel increases in price according to the number of times it has been refined. The manufacture of puddled steel is a recent invention. The product is similar to that of natural steel, being obtained direct from crude iron. It is carried on in Westphalia, but the steel is imperfect, as too much depends on the manipulation of the process. Such is its acknowledged inferiority, that while charcoal natural steel sells for \$90 per ton, the puddled steel will not command more than \$70 per ton, and an equal reduction is made on the refined steel manufactured from puddled steel blooms. The Paal method is so called from the name of the works belonging to Prince Schwartzzenbergh, near Murran, in Styria, and the process is based upon the old one of Vanaccio. It consists in plunging iron into a bath of melted metal; the carbon of the metal combines with the iron, and in a very short time converts it

into steel. The operation requires great care, for if the bars of steel be left in the metal too long, they are more or less destroyed, or perhaps melted. A more regular steel is, however, commonly obtained than that produced by the common process, and it commands a higher price in the market, being chiefly consumed by the home manufacturers, excepting a portion exported to Russia. In all those processes, the carbon is derived from the metal itself, but there is a distinct system, by introducing carbon into the iron, converting iron into steel by cementation. Iron to be thus converted is placed in a furnace, stratified with carbonaceous matter, and heat being applied, the carbon is absorbed, and a new compound thus formed. The papers describe the process minutely, and then proceed to explain the manufacture of bar steel, the price of which varies according to the price of iron, from which it is made; but as a general average, its price in commerce may be taken at \$25 per ton beyond the price of the iron used. The following may be taken as the proximate prices in 1854-5: Shear steel, in ordinary size, \$300 per ton nett; coach-spring steel, from foreign iron, \$110; from English, \$90.

In the several descriptions of steel thus manufactured, want of uniformity of temper and clearness of surface have unfitted them for many useful purposes. This has led to the production of cast-steel, for which both bar, converted, and also raw steel is melted; the metal thereby freed from any deleterious matter which the iron may have contained, an uniform and homogeneous texture obtained, with equality in temper and hardness; beside which, it is capable of receiving a high, clear and beautiful polish.

The fuel used in England for the manufacture of steel is entirely coal and coke, the former is used in the converting furnace for heating the cases which contain the bar-iron during the process of cementation. In a properly constructed furnace, one ton good hard coal is consumed in the conversion of one ton of iron, thus representing a consumption in that country of between 40,000 and 50,000 tons of coal per annum. Coke is used in the melting process, the consumption averages 65 cwt. per ton of ingots; and, although there exists no means of exactly ascertaining the weight of cast steel annually manufactured in England, it may be estimated at from 25,000, to 30,000 tons, which would represent a consumption of 81,000 to 97,000 tons of coke; and assuming that coal will produce 60 per cent. of coke, the consumption of coal would be from 113,700 to 136,500 tons.

In contrasting the steel manufacture of England with that of America and other countries, we are inclined to think Mr. Sanderson put the United States at too low a figure. He gives the following as the present annual capacity:

	Tons.	Average value of
France.....produces	14,954.....	\$2,220,000
Prussia.....	5,453.....	854,000
Austria.....	13,037.....	1,500,000
United States.....	10,000.....	1,062,000
England.....	40,000.....	7,350,000

PRESIDENCY OF THE SOUTH WESTERN RAILROAD.—At a meeting of the Directors of the Macon and South Western Railroad Company, at Macon, on Thursday last, R. R. CUYLER, Esq., of this city, and President of the Central Railroad and Banking Company of Georgia, was unanimously elected President, to fill the vacancy occasioned by the recent death of L. O. Reynolds, Esq., Mr. Cuyler consented to accept the office until the annual election in February next.—*Sav. Courier.*



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D. ASK'D.	SHS. OFF'D. ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872	7 1872		
Baltimore and Ohio.....	Transferable. Taxed.....	6 1885	79 1/4	100 44 44
Do do.....	Coupons. Not Taxed.....	6 1875		
Do do.....	" ".....	6 1880		
Do do.....	" ".....	7 1860		
Do do.....	" ".....	6 1885	98	50 45
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866		
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866		
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870	97 99	96 1/2 98
Chicago and Mississippi.....	1st " ".....	7 1862		
Do do.....	2d " ".....	7 1874	65	
Chicago and Aurora.....	1st " ".....	7 1866		
Cincinnati, Newcastle and Mich. Real Estate.....	" ".....	7 1859		
Cleveland, Columbus, and Cin'tist mortgage, convertible.....	" ".....	7 1859	100	109 111
Do do.....	do No mortgage, convertible.....	7 1855		
Cleveland and Mahoning.....	" ".....	7 1861		
Cleveland, Paines, & Ashtabula.....	1st mortgage.....	7 1861		
Do do.....	2d " not convertible.....	7 1861		
Cleveland and Pittsburgh.....	1st " convertible.....	7 1860		71 73
Do do.....	2d sec. convertible.....	7 1873		
Cleveland and Toledo.....	1st mort. not conv. 73.....	7 1863	93 94	50 87 1/2 89
Cleveland, Zanesville, & Cin'tist.....	" ".....	7 1867		84 86
Cincinnati, Hamilton & Dayton.....	1st mortgage " till 1855.....	7 1860		
Do do.....	2d mortgage.....	7 1880	85 1/2 88	
Cincinnati, N. C. & Michigan.....	1st mortgage, real estate, conv.....	10 5 & 10 y's	45 1/2 47	
Cincinnati Western.....	" ".....	8 " "	44 1/2	12 1/2 14
Cincinnati, Wil. and Zanesville.....	2d " ".....	7 " "	68 71	40 45
Cincinnati, Ind. and Chicago.....	" ".....	7 " "		
Cincinnati and Chicago.....	Real Estate.....	8 1859	41 44	11 1/2 13
Columbus, Piqua and Indiana.....	1st mortgage, convertible.....	7 1862	75 76	
Do do.....	2d " ".....	7 " "	60 61	
Columbus and Xenia.....	1st mortgage, convertible.....	7 1859		91 93
Covington and Lexington.....	2d " " till 1862.....	7 1883	67 1/2 68	50 30 31
Do do.....	Income.....	10 " "	68 1/2 69	50 20 22
Dayton and Michigan.....	1st " ".....	7 1867		20 21
Dayton and Western.....	1st " ".....	7 1862		
Dayton, Xenia and Belpre.....	1st " ".....	7 1864	26 30	
Eaton and Hamilton.....	1st mortgage.....	7 1862	60	25 45 50
Erie and Kalamazoo.....	1st mort. guaranty Mich. S. R. R.....	7 1862		
Evansville and Crawfordsville.....	1st mortgage.....	7 " "	80 81	
Fort Wayne and Southern.....	" ".....	7 " "		12 1/2 14
Franklin and Warren.....	" ".....	7 " "		
Galena and Chicago Union.....	Pledge of second section, conver.....	10 1853-6	92 1/2	100 111 112
Hillsboro and Cincinnati.....	1st mort.....	7 1878	63 64	50 25 27
Illinois Central.....	1st mortgage, not convertible.....	6 1875	85 1/2 88	100 96 1/2 98
Do do.....	Freeland.....	7 " "	88 1/2 89	
Indiana Central.....	1st mortgage, convertible.....	7 1866	63 1/2 75	50 50 52
Do do.....	" ".....	10 1857	80	50
Indianapolis and Bellefontaine.....	1st " ".....	7 1860-1	75	25 50 50
Indianapolis and Cincinnati.....	2d mortgage.....	7 " "	80 82	50 63 1/2 65
Indianapolis and Lafayette.....	" ".....	7 1861		
Jeffersonville.....	1st " not ".....	7 1861		56
Junction (Ohio).....	1st " ".....	7 1867		50 11 15
Do Indiana.....	Real Estate.....	10 " "	72 73	12 15
La Crosse and Milwaukee.....	" ".....	8 1864	77 82	
Little Miami.....	1st mortgage, not convertible.....	6 1883	86 90	100 97 1/2 99
Do do.....	" " till 1855.....	7 1861		
Louisville and Nashville.....	" " unconvertible.....	7 1858	9	100
Lyons', Iowa, Central.....	1st mortgage, convertible.....	7 1873		
Mad River and Lake Erie.....	1st mortgage, convertible till 1855.....	7 1855-6	75	50 40 43
Do do.....	2d " ".....	7 1866	75	
Do do.....	Dividend.....	7 1860	75	
Madison and Indianapolis.....	1st mortgage, convert. after 1853.....	6 1861		50
Marietta and Cincinnati.....	Domestic Bonds.....	7 " "		50 27 1/2 30
Do do.....	United 2d " ".....	7 " "		50
Hillsboro and Cincinnati.....	1st " ".....	7 " "		
Maysville and Big Sandy.....	" ".....	6 1873		
Maysville and Lexington.....	1st mortgage, convertible.....	6 1873		50
Memphis and Charleston.....	" ".....	8 1860	97	99 1/2 100
Michigan Central.....	No mortgage, convertible.....	8 1860		
Do do.....	" ".....	8 1855-6		
Do do.....	" ".....	8 1857-8		
Michigan Southern.....	1st " ".....	7 1860-90	100	102 1/2 103
Milwaukee and Mississippi.....	1st " " 1857.....	8 1862		
Mobile and Ohio.....	1st mortgage 6s. 1884.....	" ".....		
Nashville and Chattanooga.....	" ".....	" ".....		
New Albany and Salem.....	mortgage on 1st section.....	10 1858-62		50 17 18
Do do.....	1st " on other sec. con.....	8 1864-75		
New Castle and Richmond.....	1st " convertible.....	6 1873		
New York Central.....	" ".....	7 " "	104 105	100 1/2 103
New York and Erie.....	1st mortgage, not convertible.....	7 1867		
Do do.....	2d " convertible.....	7 1871	83 1/2 88	100 52 53
Do do.....	" ".....	7 1883	101 101	
Northern Cross, Ill.....	1st mortgage, convertible.....	8 1873		
Northern Indiana.....	1st " not convertible.....	7 1861	98	
Do do.....	1st " Goshen line.....	1868	90 91	105 106
Do do.....	Construction Bonds.....	" ".....		
Ohio Central.....	1st mortgage, convertible.....	7 1861	61	40 46
Ohio and Mississippi.....	2d " ".....	7 1880	54 55	10 12
Ohio and Indiana.....	1st " ".....	7 1867		50 14 18
Ohio and Pennsylvania.....	" ".....	7 1865		
Do do.....	Income. No mortgage, convert.....	7 1872		50
Pacific, Mo.....	" ".....	" ".....		
Panama.....	1st mortgage, convertible.....	7 1866	101 1/2 105	107 1/2 109
Parkersburg (or N. western Va.).....	Guar. City of Balt.....	7 1873		
Pennsylvania.....	1st mortgage, convert. till 1860.....	6 1880		50 43 1/2 40
Peru and Indianapolis.....	1st " ".....	7 " "		25 30 31
Rock River Valley Union.....	1st " ".....	7 1872		50
Sandusky and Mansfield.....	1st " ".....	7 1860		
Do do.....	2d " ".....	10 1853-7		
Scioto and Hocking Valley.....	1st " income.....	7 1861	50 51	50 50 51
Southwestern, Tennessee.....	" ".....	" ".....		
Springfield and Columbus.....	" ".....	" ".....		
Steubenville and Indiana.....	1st mortgage, convertible.....	7 1865		
Terre Haute and Alton.....	1st " ".....	1862-72	91 93	
Do do.....	2d " ".....	8 1865	83 1/2 85	
Terre Haute and Richmond.....	1st " ".....	6 1866		
Toledo, Norwalk and Cleveland.....	1st " ".....	7 1863	87 88	50
Do do.....	2d " ".....	" ".....		
Do do.....	Guar. of C.....	1883		

## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D. ASK'D.
U. S. Loan.....	6	1856	105 105
Do.....	6	1862	112 1/2 113
Do.....	6	1867	117 1/2 120
Do.....	6	1868	117 1/2 120
Do (int. ceased July 1).....	5	1833	102
Do Coupons.....	6	1862	118
Do.....	6	1867	118
Do.....	6	1853	101

## STATE.

Alabama.....	5	.....	
California.....	7	1870	87 88
Arkansas.....	6	.....	96
Georgia.....	6	.....	98 99
Do.....	7	.....	
Illinois Canal Bonds.....	6	1860	
Do do registered.....	6	1860	
Do do.....	6	1847	
Do do registered.....	6	1847	
Do do Internal Imp't.....	6	1847	106 1/2 108
Do Interest do.....	6	.....	64 64
Indiana.....	5	.....	84 1/2 86
Do.....	2 1/2	.....	53 54
Do Canal Loan.....	6	.....	
Do do preferred.....	5	.....	
Do special preferred.....	5	.....	
Kentucky, 30 years.....	6	1871	103
Do 16 years.....	6	.....	102
Do large bonds.....	6	1869-72	100 1/2
Do.....	5	.....	
Louisiana.....	6	.....	95 1/2 96
Michigan.....	6	.....	97 98
Missouri.....	6	.....	94 96
New York.....	6	1860-61	112 114
North Carolina.....	6	.....	97 1/2 100
Ohio.....	6	1856	100
Do.....	6	1860	105 1/2 106
Do.....	6	1870	110 111
Do.....	6	1875	112 113
Do.....	5	1855	
Pennsylvania.....	6	.....	
Do.....	5	1870	88 89
Tennessee, long loan.....	6	1892	95 1/2 98
Do Coupons.....	5	.....	81 83
Virginia Coupons.....	6	1866	98 1/2 100

## CITY SECURITIES.

Albany.....	6	1871-81	99 1/2
Allegheny.....	6	1875-7	80
Baltimore.....	6	1870-90	99 1/2 100 1/2
Do.....	5	1865	
Boston Bonds.....	4 1/2	1860	
Chicago.....	6	1873-7	92 1/2 95
Cleveland.....	6	1879	103 1/2 105
Cincinnati.....	6	1860-92	96 96 1/2
Do.....	6	1897	
Do.....	5	1864	
Do W. W.....	6	1865	
Covington.....	6	1857	80 80
Jeffersonville.....	6	1890	70
Louisville.....	6	1880	86 1/2 87
Memphis.....	6	1862	72 1/2
New York.....	7	1857	100 1/2
Do.....	5	1858-00	96 99
Do.....	5	1870-5	97 100
Do.....	5	1890	
Philadelphia.....	6	1876-90	94 1/2 95
Pittsburgh.....	6	1869-78	81 82
Do coupons.....	6	1883	
Racine.....	7	1873	61 1/2 63
St. Louis.....	6	1870	85 86
Wheeling.....	6	1873	81 1/2 83

## COUNTY BONDS.

Bourbon, Ky.....	6	1881	77 1/2 80
Darke, O.....	7	.....	
Fairfield, O.....	7	1862	
Fayette, Ky.....	6	1881-3	75 75
Hancock Co.....	7	.....	70 75
Mason, Ky.....	6	1881	73 76
McCracken Co. Ky., endorsed by New Orleans and Ohio R. R.....	6	1866	80 85
St. Louis.....	7	1871	

## BANKS.

American Exchange Bank, N. Y.....	105 1/2	
Ohio Life Insurance and Trust Co.....	98	100
Washington Insurance Co.....	84	85
City Insurance.....	70	
Cincinnati Insurance Co.....	80	
National Insurance.....	75	80

## KENTUCKY.

Bank of Kentucky and Branches.....	100	
Northern, and Branches.....	100	
Southern, and Branches.....	93	
Bank of Louisville.....	105	108
Kentucky Trust Co.....	105	108
Farmers' Bank of Kentucky.....	105	108
Commercial Bank of Kentucky.....	105	108

## INDIANA.

State Bank and Branches.....	105	108
TENNESSEE.		
State Bank and Branches.....	105	108
Union.....	105	108
Planters.....	105	108

## LAND WARRANTS.

160 acre warrants, per acre.....	Buy'g	Sell'g
80 acre warrants.....	\$1 10	1 12 1/2
40 acre warrants.....		



## RATES OF EXCHANGE.

Place.	Time.	Buy'g.	Sell'g.
On New York.....	Sight.....	par.....	prem.
Boston.....	Sight.....	do.....	prem.
Philadelphia.....	Sight.....	do.....	prem.
Baltimore.....	Sight.....	do.....	prem.
New Orleans.....	Sight.....	½ dis. to	par.
England.....	.....	110	110½

## SPECIE.

California clean, 9 oz.....	\$17 60	@	\$17 65
Spanish Doubloons.....	16 75	@	16 75
Patriot Doubloons.....	13 75	@	15 80
Sovereigns.....	4 86	@	4 88
Guineas.....	5 00	@	5 00
American, new.....	1 06	@	1 00
American, old.....	1 06	@	1 06
Portuguese.....	1 00	@	1 00

## SILVER.

American Dollars.....	1 03½	@	1 04
American Halves.....	1 03½	@	1 04½
Spanish Dollars.....	1 14	@	1 14
Spanish Quarters.....	1 00	@	1 01
Mexican Dollars.....	1 05½	@	1 05½
Five Franc pieces.....	97	@	97½

\* The standard English value attributed to the Sovereign is \$1.44, in London. This with exchange added, say from 9½ to 11 per cent., gives the American value of the English coin

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending Sept. 5, 1855.

\$5,000 Cin. & Chicago R. R. Co., 8 per ct.	
Real Estate Bonds.....	41
500 Col. Piqua & Ind. 7 per cent Income Bonds.....	15½
1,000 Ohio & Miss. R. R. Co., 7 per cent. 2d Mort. Bonds.....	54
2,000 Hillsboro & Cin. R. R., 1st Mort. 7 per cent. Bonds.....	63
1,000 Cov'g. & Lex. R. R. Co., 10 per cent. Income Bonds.....	68½
320 Cin. & Chicago R. R. Co. Interest Coupons due Jan'y 1, '55.....	40
200 Cin'ti. Western, R. R. Co. Interest Coupons due July 1, '55.....	44½
100 Shares Ohio & Miss. Railroad Co., 10½	
91 " " " " " " " " " " " "	11
100 " " " " " " " " " " " "	10
67 " " " " " " " " " " " "	9½
35 " " " " " " " " " " " "	9½
22 " Little Miami R. R. Co.,.....	97½
10 " Cin. & Chicago.....	11½
100 " " " " " " " " " " " "	10½
100 " " " " " " " " " " " "	11½
21 " N. Albany & Salem.....	16
28 " Ind. & Cin. ....	63½
15 " Little Miami,.....	97½
20 " N. Albany & Salem.....	17
20 " Cov'g. & Lexing. R. R. Co. 30	

## LONDON QUOTATIONS

OF  
AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF  
E. F. SATTERTHWAITE, STOCK BROKER, LON.  
August 17, 1855.

Belvidere, Del., guar. 1st mort., conv.....	@	87
Chicago & Rock Island, Mort. conv. 1853.....	"	91
Cin. Ham & Dayton, 2d mort.,.....	"	80
Erie, 3d Mortgage, 1853.....	89	90
" Sinking Fund.....	81½	82½
Grand Trunk (Canada) Debenture.....	94½	95½
Great Western " conv.....	114	116
" " non-conv.....	108	109
Illinois Central, 1st Mort., 7s.....	78½	79½
" " with option 70 per cent. shares till Jan. 1858.....	84	85
Little Miami 1st Mort. not conv. 6s.....	"	"
Marietta and Cincinnati, 1st Mort.....	"	81
Michigan Central, conv., 8s.....	97	99
N. York Central, No Mort. Not conv.....	83	85
" " conv.....	96	97
Ohio and Mississippi, 1st Mort., 1872.....	84½	85½
Ohio and Pennsylvania, Income, 1866.....	"	96
Panama No mort., 1866.....	91	92
Pennsylvania, 1st Mort., conv.....	93	95
" " Sterling, 3d Mort.....	"	"
Steubenville and Ind., 2d Mort.....	"	"

## Monetary and Commercial.

During the past week business in general has assumed a more active tone. Money for business purposes is more in demand but by no means as much so as same dates last year. Supplies of capital continue ample for all legitimate purposes. Rates of interest are unchanged.

Exchange on the East is still par @ ¼ per cent.—New Orleans ½ dis. @ par.

In stocks, we have to note a dull week. The transactions are not large and prices have not materially increased.

From the East we learn that money is in greater demand. Business is more active and the abundant harvest begins already to tell on the commercial aspect of the country.

The reports of the jobbing houses of the various Atlantic cities, note increased activity in their particular trade.

The Baltimore Price Current says:—There has been considerable briskness this week among the domestic Dry Goods commission houses, and many of the jobbers are also busy. The season's trade has pretty well opened, and from present appearances a very considerable extent of trade is anticipated. Stocks of goods in store are full and well assorted, though we have no change to note in prices.

Bicknell's Reporter, of Philadelphia, says:—The fall trade is quite active in Philadelphia. All our leading commercial thoroughfares present a highly animated aspect. The payments thus far have been fair, and the purchases quite liberal. The prospect, indeed, is all that could be desired.

The New York Economist says:—The Stock market feels the influence of the change in the currents of money. The fall business promises good, requiring more money, and the country requiring funds to move its produce. The accumulation which has so long been going on in the bank vaults to be employed upon stocks begins to decline, and the effort to place stocks cause a greater demand for money, while many are withdrawing their funds from them, expecting lower rates; declining prices result, and the bear party, taking advantage, raise a hue and cry exaggerating the "soft spots" in all companies, in order to sink their values. As the business bucket is going up, the stock bucket is going down.

The following table shows the deposits in New York banks August 6th, and the date of the lowest point:

	1853.	1854.	1855.
August 6.....	\$60,994,568	58,279,954	65,846,923
November 5.....	\$35,500,977	43,507,961	Estimated, 45,000,000
Decrease.....	5,493,591	14,771,993	20,800,000

## SALES AT THE NEW YORK STOCK BOARD, Sept. 3.

\$ 5,000 U. States 6's '68.....	117½
10,000 Kentucky 6's.....	102
6,500 Virginia 6's.....	98½
5,000 Erie conv. Bonds, '71.....	83½
3,000 Erie Bonds, '75.....	90½
2,000 No. Indiana Bonds.....	98
10,000 Ill. Cent. Railroad Bonds.....	85½
35,000 Ill. Cent. F. Bonds ex-int.....	88½
100 Shares Ill. Cent. R. R.....	96½
100 " Erie.....	52
100 " Harlem.....	28½
10 " Mich. Cent.....	99½
50 " Panama.....	107½
6 " Clev. Col. & Cin.....	109
200 " Cleveland & Toledo.....	87
50 " Chic. & R. I.....	96½
50 " Wis. Lake Shore R. R.....	85
650 " Reading.....	95½

## ON THE EXPLOSION OF STEAM BOILERS.

SIR:—Having read in your last week's Magazine a communication from M. Andraud to the French Minister of Agriculture, Commerce and Public Works on the explosion of steam boilers, in which he states the explosion must be caused by two masses of contrary electricity, resinous and vitreous, coming into contact, which masses, he states are evolved with the steam; I shall be glad if you will allow me to say a few words on the subject.

Now, sir, supposing two such masses to be evolved, as stated by M. Andraud, their coming into contact would in no way produce an explosion; they would only neutralize each other. But they could never be formed in any quantity as supposed by him; owing to

the conductivity of the vapour and water within the boiler, and also the boiler itself, they would be neutralized as soon as formed, if formed at all.

Again, the boiler is always in metallic communication with the earth; thus, by the steam pipe with the engine, and from thence by the water pipe, to the well or tank for the supply of the boiler with water, which always conducts any electricity from the boiler to the earth as soon as formed.

In a paper read by Professor Faraday before the Royal Society, entitled, "On the Electricity evolved by the Friction of Water and Steam against other Bodies," I think he clearly proves that the electricity is not evolved with the steam, as supposed by M. Andraud. The object of the experiment detailed in his paper is to trace the source of the electricity which accompanies the issue of the steam. Professor Faraday relates that the electricity is never excited by the passage of pure steam, but only when water also is present; hence he concludes it is altogether the effect of the friction of the globules of water against the sides of the opening, urged forward by the rapid passage of the steam. The effect of this is to render the steam or water positive, and the pipes from whence it issues negative. Heat, by preventing the condensation of steam into water, likewise prevents the evolution of electricity, which again speedily appears by cooling the passages, so as to restore the water, which is necessary for producing the effect. Water will not excite electricity unless it be pure; the addition to it of any soluble salt or acid, even in minute quantity, is sufficient to destroy this property. The addition of oil or turpentine on the other hand, occasions the development of electricity of an opposite kind to that which is excited by water. A similar and more permanent effect is produced by the introduction of olive oil along with the water. Similar results were obtained by substituting for steam a stream of compressed air.

There are several additional facts tending to confirm the opinion that friction is the cause of the excitement of the electricity thus produced, and not evaporation or mere change of density in the steam. In Faraday's experiments no electricity was excited when the safety-valve was opened wide, and the steam escaped without friction; but when it was allowed to impinge on a cone, electrical effects were directly manifested.

Thus I think we may safely come to the conclusion, that whatever may be the force that explodes steam boilers, that force is not electricity.

## ADAPTATION OF THE LANDS OF NEW JERSEY FOR AGRICULTURAL PURPOSES.

BY HON. WILLIAM PARRY, CINNAMINSON, N. J.

RESPECTED FRIEND, E. C. BREWSTER:—Thy favor was duly received, relating to the agricultural condition of Pennsylvania and New Jersey, and stating that the following assertions had been made, viz: "The State of Pennsylvania is a better agricultural State than the State of New Jersey, even on an average being taken "as to size;" and requesting an answer, giving my views on the subject, with which it affords me pleasure to comply.

Each State possesses some advantages not enjoyed by the other, which may be readily pointed out, but to sum up the whole and strike a true balance is a different matter.

The land in the northern part of New Jer-



sey is of much the same character and quality as in Pennsylvania; the same range of mountains extending through each State, with this difference in favor of New Jersey, its location being between Pennsylvania and New-York it is that nearer the best market, and about as well supplied with railroads as Pennsylvania.

The geographical position of New Jersey, with reference to agriculture, has no rival; lying between the two commercial emporiums and near the largest manufacturing districts in the Union, nearly surrounded by the great waters connecting us with other continents, well supplied with rivers, creeks, and smaller streams penetrating throughout the interior, many of them navigable, on which the gentle ebb of tide carries the products of the soil, lumber, grain, and staple articles, to market; and the returning flood brings back merchandize and manure to supply the farmers' want, which gives to New Jersey great natural advantages so far as relates to carrying agricultural crops to market, but since the introduction of railroads, water communication has become less important. Sections of country that could not be supplied with water conveyance may now be better accommodated without it.

So far as internal improvements and liberal legislation can foster agriculture by facilitating the transportation of crops from distant parts to market, and carrying back fertilizing materials to enrich the soil, thereby placing the remote portions of the State nearly on an equality with the frontier farm, Pennsylvania has the advantage, more on account of the course pursued in relation to the construction of railroads than from strength of soil to support agricultural crops, for where the deficiency is found in Jersey land, it is fully compensated by the greater ease with which it is worked.

The following statement of the crops and value of land, taken from the Census Report, will serve to show the present agricultural conditions of each State.

Pennsylvania in size and population is about five times as great as New Jersey, and has more than six times as many acres of farm land improved.

State of Pennsylvania.		N. Jersey.	
Value per acre of farm of land....	\$27		\$43
Average number of acres in each farm.....	117		115
Average value of each farm.....	\$3,197		\$5,030
Bushels of Wheat.....	15,567,691	1,600,190	
Average per acre.....	15	11	
Bushels of rye.....	4,805,160	1,255,578	
Average per acre.....	14	8	
Indian corn.....	19,835,214	8,759,704	
Average per acre.....	20	23	
Oats.....	20,641,819	3,083,524	
Average per acre.....	22	26	
Value of Orchard Products.....	\$723,389	\$607,260	
Average for each farm.....	\$5	\$5	
Products of market gardens.....	\$628,714	\$475,240	
Bushels Potatoes.....	6,032,004	3,715,350	
Value of poultry.....	\$685,801	\$336,950	

It will be seen by the above that the preference is in favor of New Jersey, except for winter grain, which, previous to the present high prices, had been considered of secondary importance in those sections having convenient access to market, and was sown to occupy the ground during the time intervening between a crop of vegetables and the succeeding crop of grass; frequently three crops, commencing with peas, then melons or cucumbers, followed with turnips, worth several crops of wheat, are taken from the same ground in one summer, before seeding it with wheat, which is the last work before the frost closes operations in the fall. Wheat sown in proper season, I think, will yield as much per acre in New Jersey as in Pennsylvania, for the premium crops in Burlington county, N. J., have for several years past averaged more than thirty bushels per acre, and as high as forty have been raised.

The taxes in Pennsylvania press heavily on the agricultural interest, while in New Jersey they are comparatively light.

The value of land for agricultural purposes does not entirely depend on the amount of produce that can be grown per acre, but in a great degree upon the facilities for transporting the crops to market; for the cost of transportation must first be paid; as well as of tillage and manure, before the farmer gets any profit; and those States in which enterprising men enjoy the right to build highways on which to carry their produce wherever the public good requires, will, other things being equal, surpass those where this right is denied.

In this respect Pennsylvania has the advantage as an agricultural State, for, under the operation of a *General Railroad Law*, men of capital may build railroads where they will best promote the general good, by making compensation for all damages sustained by reason of their construction.

This inestimable privilege, so reasonable in itself, is not enjoyed in New Jersey; and the railroads that have heretofore been built were located without reference to the agricultural interest, and hence the southern half the State, embracing over two millions of acres, admirably adapted by nature to agricultural purposes, and far surpassing the northern half, which more resembles Pennsylvania land, remains unsupplied, having but one railroad south of the Camden and Amboy Company's roads.

The people of South and West Jersey have supplicated a number of years for permission to build a railroad through their own fertile land, to carry their crops to market, and offered to make compensation for all damages that would be sustained thereby; but all in vain.

In consequence thereof but a small part of New Jersey is yet available for agricultural purposes.

Of over five millions of acres of land there are less than two millions improved.

Hundreds and thousands of acres of fertile land easily tilled, which by means of a railroad would be within one hour's ride of Philadelphia or New York, now remain uncultivated, and can be purchased for a less sum than the same land will rent for annually when supplied with railroads.

This land is mostly of a sandy loam on the surface, easily worked at all seasons of the year, either wet or dry, when clear of frost. Its free and mellow nature allows the surplus rains to pass readily from the surface without injuring the crops, and yet it is so retentive of moisture as seldom to suffer from drought, which renders it more certain for an average crop during a series of years than loamy land of a stronger quality, and being underlaid with a subsoil of clay and gravel which retains manure and moisture for the support of agricultural crops, plants and fruit trees, accounts for the celebrity to which New Jersey has attained for the production of choice fruits. I have seen the premium pears of Burlington county, N. J., bring at public sale four dollars per doz., and was credibly informed that the same pears were sold at an ice-cream saloon on Chestnut St., Philadelphia, at one dollar each.

Extensive deposits of marl, varying from five to twenty feet in depth, are distributed throughout New Jersey, more than enough to enrich the whole State and furnish a liberal supply to Pennsylvania, when we get railroads on which to carry it.

This valuable manure, in its natural state, is well adapted to all kinds of crops, and especially so for promoting the growth of potatoes, white clover and other grasses, and far surpasses the Apothecary's Patent Fertilizer.

Our most successful potato growers use marl liberally, and some of them plant from fifty to one hundred and twenty acres each of a season, and raise a better crop of large sized, smooth and handsome Irish potatoes, free from prongs or knots than could be, by the use of any other

manure or fertilizer known to the public without marl.

In the vicinity of the marl districts, the custom has become general to follow the whole crop of corn with potatoes, to the almost entire exclusion of oats and barley; and hundreds and thousands of horses and mules are annually employed hauling marl into those sections where the people are not allowed to build railroads to carry it.

The sweet potatoes raised in New Jersey exceed by ten times in quantity, and are of much better quality than those grown in Pennsylvania, and their culture is rapidly increasing; many farmers plant of a season from fifty to two hundred thousand hills each; they do not require strong rich land, but yield a better crop in loose sandy soil, and in ordinary seasons yield about one hundred dollars worth per acre. A neighbor of mine a few days since informed me that owing to the high price obtained, his crop of sweet potatoes last year yielded him three hundred dollars per acre.

I consider the character and location of New Jersey soil more favorable for agricultural purposes than that of Pennsylvania, and when supplied with railroads will be the garden for raising early vegetables and fruits for the large commercial cities and manufacturing districts by which it is surrounded.

Then will the real worth of land in New Jersey for agricultural purposes become so manifest, as to give it a greater preference over that of Pennsylvania than was exhibited in the last census report, by which it appears that the value of farm land in New Jersey is sixty per cent., or three-fifths higher than in Pennsylvania; this difference now exists notwithstanding New Jersey is under an influence that prevents the construction of railroads through the best agricultural districts, and mainly on account of the natural advantages, for the people still use the same modes of conveyance that were employed by the ancients before the superiority of locomotives was known.

The land compared with that of Pennsylvania, is easier tilled, equally productive, less liable to suffer from sudden changes of wet and dry, imbibes more freely the sun and dew to favor the growth of early fruits and vegetables, and ripen them sooner for market, which gives a larger return to the husbandman.

Nature has been bountiful indeed, but in order to enjoy the full benefit of her advantages, New Jersey must keep pace with other states and allow her citizens to build railroads through the agricultural districts to develop their resources. The general railroad laws adopted in Pennsylvania and elsewhere are favorable for promoting agricultural interest, while the railroad monopoly in New Jersey is against it.

With sentiments of regard and a desire that this interesting and important subject may claim a deeper hold on the public mind than heretofore; that whatever obstructions are found to prevent the advancement of agriculture may be removed, thereby benefiting the whole community, as all other trades and professions are greatly dependent for their success on its development.

The foregoing interesting communication was elicited, as we understand, by a discussion between the person to whom it is addressed, E. C. Brewster, and another gentleman of this city, as to the comparative agricultural resources of Pennsylvania and New Jersey. It was concluded to refer the matter to a committee, of which William Parry was one, for examination, and we cheerfully give place to the article in the *Farm Journal*. A large number of our subscribers reside in New Jersey, and it is hardly less interesting to us in Pennsylvania than to them, to know that her size being considered, she is already in advance of her sister states in some important staples.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**  
**Railroad Depots and Station Houses,**  
at current rates. **L. A. OSTROM,**  
Aug. 16. No. 6 West Third Street, Cincinnati.

## SCHENECTADY Locomotive Works,

SCHENECTADY, N. Y.

THESE WORKS HAVING BEEN ENLARGED and improved, and having received extensive additions to their tools and machinery, are prepared to receive and execute orders for

**LOCOMOTIVE ENGINES,**  
**AND TENDERS, AND**  
**RAILROAD MACHINERY**

generally, with the utmost promptness and despatch, and in the best style.

The above works being located on the New York Central Railroad, near the center of the state, possess superior facilities for forwarding their work to any part of the country, without delay.

**JOHN ELLIS, Agent.**  
**WALTER McQUEEN, Sup't.** Aug. 15.

**Railroad Iron,**

**1,500 TONS**, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.**, 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

**RAILROAD IRON.**

**1,000 TONS** best quality Welch Rails, "Erie" Pattern, 59 lbs. per yard, to arrive, due here in fifteen days. Apply to  
**VOSE, LIVINGSTON & CO.**  
New York, Aug. 16th, 1855. 9 South William st.

**MIDDLETON, WALLACE & CO.,**  
**LITHOGRAPHERS & ENGRAVERS,**  
No. 115 Walnut St., Cincinnati.

**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
Beautifully executed and at moderate rates.

**Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.**

Engraved in all styles and on short notice.

**NOTICE TO CONTRACTORS.**

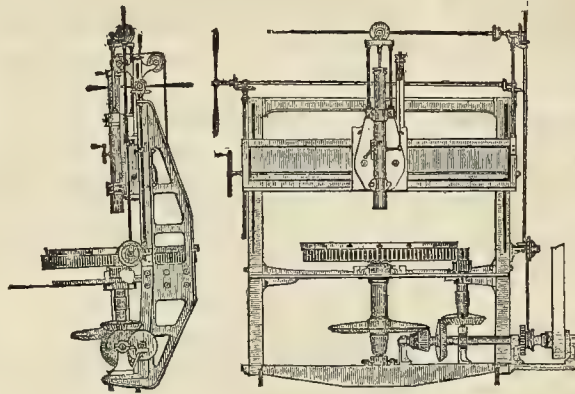
PROPOSALS will be received at the office of the Henderson and Nashville Railroad company in Madisonville, Kentucky, until the first Monday in October next, for the grubbing, clearing, grading and masonry of said road, or any part thereof. The work will be divided into convenient sections to suit bidders, of not less than half a mile. Proposals will be opened at the city of Henderson, on the said first Monday in October, at which time and place the Board of Directors will meet for that purpose.

**E. G. SEBREE, Prest.**  
**CHAS. SEYMOUR, Chief Engineer.**  
August, 18th, 1855.

5w

**NILES' WORKS.****FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &c., &c.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well known class of

**ENGINEERS' & MACHINISTS' TOOLS,**

**SHAFTING, GEARING,**

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**MATHEMATICAL INSTRUMENTS.**

**T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

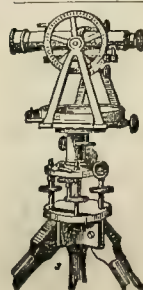
No. 1, 2d STORY APOLLO BUILDING,  
CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.  
**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines, 23 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS, President.**

Also, for sale, two Twenty Horse Power Stationary Engines.  
Aug. 9th

## THE SCHENCK MACHINERY DEPOT

AND

**Leather Banding Manufactory,**

No. 163 GREENWICH STREET,  
NEW-YORK,

**KEEPS** constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather-Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR.

Aug. 9 ly

**D. D. MILLER,**

Manufacturer of

**LOCOMOTIVE, RAILROAD AND HAND LANTERNS,**

190 Water Street, New York.



**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,  
Railroad Record Office, 167 Walnut St. Cin.

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-Western Car Works.

Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

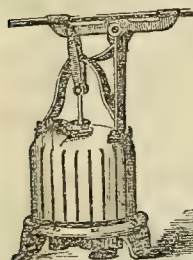
172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y

**IRON BOILER FLUES.****PASCAL IRON WORKS.****MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,

PHILADELPHIA.

**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Grainger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly Cash.

Aug. 2, 1855.

R. L. OWEN, Chief Engineer.

aug 2 12w

**THE KENTUCKY MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

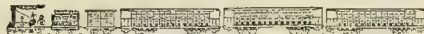
The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book Keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

July 26 2m

P. DUDLEY,  
President of the Board.

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted), each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.;—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.;—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.;—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.;—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 24½ hours. Fare \$10.40

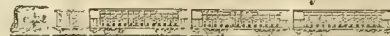
MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.  
MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M. LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.  
The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

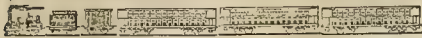
M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

feb. 8-ly D M MOKROW, Superintendent



**Baltimore & Ohio Railroad.**

350 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Belleaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, and various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 6f Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,  
Chief Engineer and Superintendent.

Omnibusses run from the principal hotels, and call on orders left at the Ticket Offices.

Omnibusses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

## STEREOTYPE FOUNDRY, AND AGENCY OF

**L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES),  
is prepared to execute in the best manner all kinds of

**STEREOTYPING,**

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

## 1855. New Arrangement, 1855 COMMENCING MONDAY, JULY 16.



## LITTLE MIAMI RAILROAD, VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M.,  
10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both  
to and from Cincinnati and the East.

LAID WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The Roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.  
CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

To Columbus in.....	3½ hours.
To Cleveland in.....	8½ "
To Dunkirk in.....	14½ "
To Buffalo in.....	16 "
To Albany in.....	26 "
To New York in.....	30½ "
To Boston in.....	35 "
To Crestline in.....	6 "
To Pittsburgh in.....	14 "
To Philadelphia in.....	30½ "
To Wheeling in.....	10 "
To Baltimore in.....	26½ "
To Washington in.....	29 "
To Steubenville in.....	12 "

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburg, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburg, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburg Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburg; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburg and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburg, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

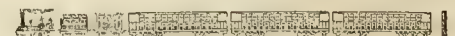
south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and  
Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays expected, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent

Indianapolis, March 22, 1855

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demosville, Butler, Irving, Falmouth, Cullerville, Boyd's, Berry's, Robinson's, Garnett's, Cynthiana, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, Leave Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

## RATES OF FARE.

Covington to Lexington.....	\$3 00
Covington to Paris.....	2 40
Covington to Cynthiana.....	2 00

## FOR THROUGH TICKETS.

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington. J. M. DOUGHERTY,  
Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices oct. 17\* CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cin- cinnati Railroad.

VIA LAWRENCEBURG.

IN connection with the **Ohio and Mississippi Railroad**. Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and La Fayette for Chicago both morning and evening Trains, and at Chicago for South, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,

Cincinnati, June 12, 1855.

Agent.

**W. G. ATKINSON,**

Civil Engineer, Surveyor & Draftsman,  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated,  
Maps and Reports furnished; Researches made for  
Coal, Iron, Copper, Lead, or other Minerals,  
Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared. mar-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

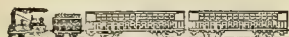
They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke. Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNIS & PECK,  
Louisville, Ky.

Je. 9-14

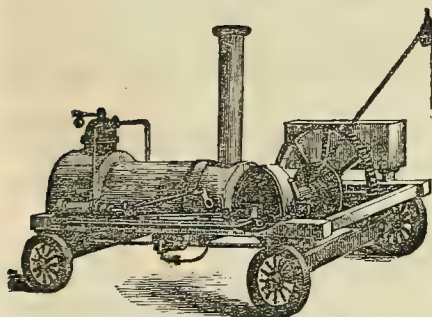
**Norris' Locomotive Works,**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
RICHARD NORRIS & SON.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,  
S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

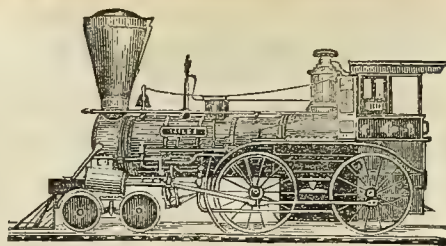
Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DURAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846-6\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.**

**JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH & RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R.

R. Record of October 20th, 1853. mar1-ff

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

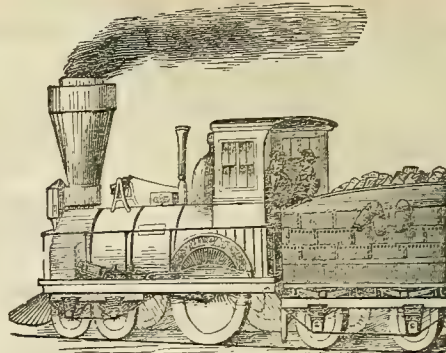
CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.30

MOORE & RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. & R. Wason, Springfield, Massachusetta.

**Railroad Car Findings.**

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fit Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS  
Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes. Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers, Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.

to c6

**CAR MANUFACTORY,**

Dayton, Ohio.



THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

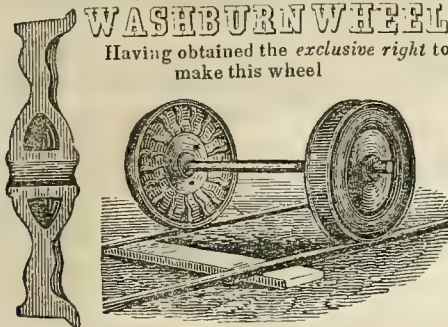
Dayton, Jan 24th. 1853.

Jan. 25-4



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT. . . . M. D. WELLMAN. . . . C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburgh, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16<sup>th</sup> JOSEPH DAVENPORT.

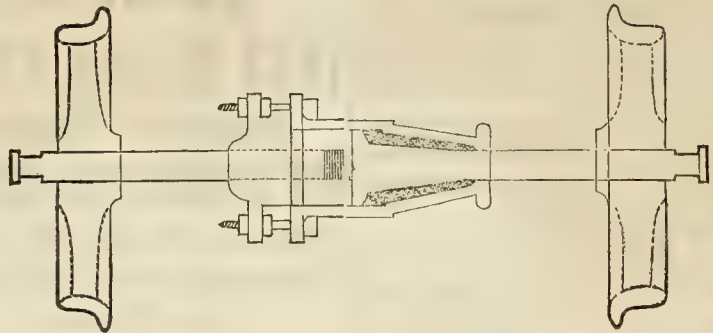
### S. C. THOMSON & CO., MANUFACTURERS OF

## PATENT PAD LOCKS,

For Railroad Switches, Merchandise Cars Stores, Cemeteries, Iron Safes, &c.,

Cor. Railroad Avenue and Market st.,  
n.12<sup>th</sup> NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels. That is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

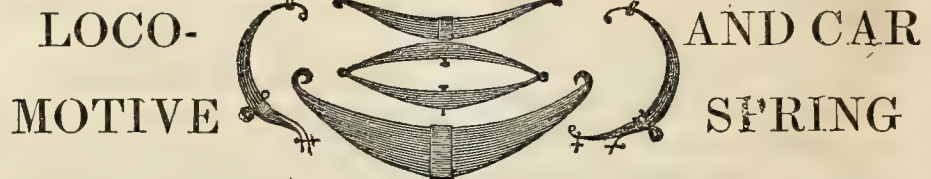
It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
Christiana, Pa.  
Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

3y10+

## MCDANIEL & HORNER,



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDE IRON. Orders from any part of the United States will be thankfully received and promptly attended to

McDANIEL & HORNER.

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

NORRIS BROTHERS, Locomotive Builders, Philad.  
A. C. GRAY, Prest. New Castle Manuf. Co.  
U. WELLS, R. R. Car Manuf. Petersburg, Va.  
I. R. TRIMBLE, Supt. Philad. R.R. Co.  
May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.  
EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.  
THOMAS DOUGHERTY, Master Mach. do.  
THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.

## DURYEE & FORSYTH'S PATENT PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.  
HEWSON & HOLMES,  
83 and 85 Walnut Street.

## THOS. M. CASH, PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,  
Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "  
Charles H. Fisher, Esq., "  
Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.  
Pinckney Huger, Esq., Pres't. N.E.R.R. Co.  
Oct. 13-14.



**Parry's Anti-Friction Box,**

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. POSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENN'A R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH P. A. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

28  
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LAP-WELDED  
IRON BOILER TUBES,  
Prosser's Patents.  
TUBE EXPANDERS, FOUR-CUTTER AND  
CHAMBERING DRILLS,  
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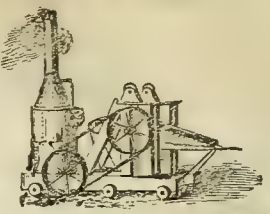
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nov177

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Important to Railroad Companies, etc.



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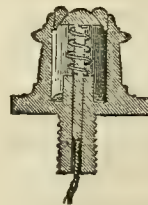
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

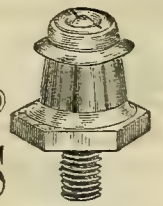
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# Railroad Record.

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W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING,.....SEPTEMBER 13, 1853.

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**RAILROAD RECORD EXTRA.**—Our subscrib-  
ers will receive to-day in the shape of an EX-  
TRA, the Annual Statement of the Commerce  
of Cincinnati, including a general view of her  
present position, and future prospects; her  
situation, resources, growth, statistics, and  
advantages, agricultural, commercial, indus-  
trial and financial.

This article was originally written for the  
Chamber of Commerce of this city and pre-  
sents a complete view of the present condi-  
tion of our city. It was found impossible to  
reduce and yet give the spirit of the article  
hence we have concluded to give it entire.  
We give this week the first part of the view  
but will complete it in our next week's issue.

# Railroad Record

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VOL. III.—No. 29.

## OHIO & MISSISSIPPI RAILROAD.—ST. LOUIS END.—THE INVESTIGATION.

The Report put forth by the investigating  
committee, at St. Louis, is a curious affair.  
Knowing nothing of it except what appears  
on the printed surface; it seems to us like an  
attempt at imposition under the aspect of  
frankness. We shall take the liberty of dis-  
secting it; let the figures of the committee tell  
their own story, and write their own comment  
on the committee's conclusions.

In the first place it seems, that the people  
of St. Louis having discovered, that the road  
had cost considerably more than double what  
it was contracted for, instead of rejoicing  
like sensible people, that it was made at all,  
flew into a state of indignation against the  
managers; that an investigating committee  
was appointed; and it was absolutely neces-  
sary to blame *somebody*. Of course, the direc-  
tors will not blame themselves; of course,  
Page, Bacon & Co. who made these directors,  
will not blame themselves. *Somebody* must  
be found to blame. The farther off the bet-  
ter. It would be a capital idea to cast the  
blame on the English bondholders; but un-  
fortunately they have done no wrong, except  
that of lending the road money. It would be  
just the thing to lay the blame on *H. C. Seymour*,  
the responsible contractor; but, he  
is dead, and the dead hear not the censures  
of the living. Who, then, can be blamed?  
The committee after great *investigation* have  
finally made the discovery, that the CONSULT-  
ING ENGINEER was to direct, *how* certain parts  
of the road were to be made, and now they  
have got it. Like the great philosopher of  
old, they cry out *eureka!* We have found it  
out. Let him have it!

Now, we have neither seen nor spoken to  
the "Consulting Engineer" on the subject,  
but, undertake to say, from the facts fur-  
nished by the Committee, that he is the last  
man of all concerned, upon whom any cen-  
sure should fall.

First, what was the amount, and what the  
items of the *extra* cost, about which so much  
has been said? The aggregate is easily seen:

Contract Cost.....	\$3,000,000
Actual cost to the present time.....	6,564,128
Extra cost.....	\$2,564,128

Now this \$2,564,128 (which will soon be  
half a million more), is what the committee  
set out to account for. Let us see *how* this  
can be made up, and *what* the "Consulting  
Engineer" had to do with it.

Secondly, let us examine this part of the  
matter. The very first and heaviest item, is  
that, which Messrs. *Page & Bacon*, as finan-  
ciers had to do with.

Interest.....	\$263,914
Interest City Bonds.....	51,840
Discount on City Bonds.....	11,323
Interest on County Bonds.....	19,000
Discount on Land Mortgages.....	211,200
Page & Bacon's Commission on iron as allowed by Directors, 3½ per cent.....	46,900

Total.....\$597,377  
So far the Committee admit.

It will be observed, that *Page & Bacon*  
were allowed 3½ per cent commission, on  
the purchase of iron; but, what other sums  
were allowed them, we have no means to  
know. The St. Louis Board and Committee  
are resolutely determined, that the *items* of  
*Page & Bacon's* account will *not* see the  
light.

But, let us proceed with the *extras*, an-  
other is:

"Extra masonry cost over that of the  
Hudson River Railroad".....\$96,773

Now, the original contract had provided  
for this, by saying, that if the cost of *stone*,  
as might be the case, were above that of the  
Hudson River Railroad, *H. C. Seymour & Co.*  
might construct it of *wood*. But, the St.  
Louis Board expressly *modified* this them-  
selves, and required the *stone*, whether, or no.  
This *extra*, therefore, is *their own*.

The next item is:  
"Change of location, and running  
the grade of, across the American  
Bottom,".....\$91,361

On this item, the committee say: "Professor  
Mitchell writes to the Board, under date of  
January 24th, 1853, "the grades were fixed  
across the American Bottom previous to the  
contract with Messrs. Sanger, Camp & Co.,  
and any changes now made, whereby the  
expenses of construction are increased, will  
be chargeable to the company and not to the  
contractors."

All that the "Consulting Engineer, Mr.  
Mitchell, did here, was to tell the Board, that  
if it changed the contract, it must pay the  
expense; a very self-evident proposition.  
The inference is fair, that Mr. Mitchell *dis-*  
*approved* the change. If he had not, the com-  
mittee would have been quick to show it.  
This "extra" is also *their own*.

Another item is:  
"Extra cost of machine shop, motive  
power, rolling stock &c., above  
estimate,".....\$510,069

Now, how did this arise? By the *original*  
contract, these items were to be finished by  
the contractors, for a "*first, class road*" as  
"*explained to the Contractors by the consulting  
Engineer.*" Well,—Mr. Mitchell being subse-  
quently appointed "Financial Commissioner,  
and Consulting Engineer, it was his duty to  
*explain* these items, and he fixed them at  
\$267,000. The St. Louis Board, however,  
*changed* the entire contract. They quarrelled  
with *H. C. Seymour*, till he was tired of them,  
and then, with his consent, transferred the  
contract to *Sanger, Camp & Co.* They  
agreed with the Company to release it from  
this \$267,000, and the Company agreed to  
furnish this part of the work themselves,  
and did, at a cost of \$777,000! They affect  
to believe, that Mr. Mitchell had not allowed  
enough. We do not know; but, we see one  
item, that will go far to *test* it. Mr. Mitchell



allowed \$8,500 each for Locomotives. Now this is very nearly the price the best locomotives are made for, at Cincinnati, and from this item we judge he was not far out of the way in his allowance for the whole. But the St. Louis Board thought to do things on a more magnificent scale, and without waiting to see *whether they really needed* them or not, ordered 14 more locomotives and constructed a machine shop, at a cost of \$250,000, which must have been double what was really required. We are now getting into the *real Sinking Fund question*: here is a half a million gone in one item.

The next item of magnitude is the "*settlement with Sanger, Camp & Co.*" and that is a decided curiosity. The grand complaint is that the road was not constructed *for the contract price*. The object of the committee and of ourselves is to show *why* it was not. Is it not plain, that if the contract price is to be the *test*, the contract should be *kept*, abided by? This is palpable. So far from doing this, the St. Louis Board changed the contract half a dozen times, till it was no longer the same thing in any respect. They changed the grade on the American Bottom. They changed it on the Coreysville Road. They modified the contract from wood to stone work. And now they made another change more costly than either. Seymour being tired of them, and they jealous of him, it was agreed, as we have said, to transfer the contract to Sanger, Camp & Co. In doing this it was also agreed, that if the contractors *finished the road two years sooner than required*, they should be allowed (we believe) *half the profits* for the two years; and those profits (*that is half*) were estimated; we have been informed, at \$350,000. Now, this was palpably a folly. Sanger, Camp & Co. were as much interested in finishing that road *as the company could be*. Who are the company? The stockholders; and the contractors, if the road is finished are the largest stockholders. Besides an *estimate* of profits from Vincennes to St. Louis, *unless* the road be finished from Vincennes to Cincinnati must be a mere figment of fancy. Estimates of a Railroad, with all its elements complete may be safely made and are often reliable, but an estimate for a fragment of a road in Illinois is an uncertain thing. But, to proceed, the hard times came and the company could not comply with their arrangement, and Sanger, Camp & Co. claimed damages from them. The upshot of the matter was that Sanger, Camp & Co. received out of the St. Louis Board no less than \$559,857! Now, let the reader mark and digest, that this is an *extra* and not a part of the original contract. What *consideration* did Sanger, Camp & Co. give for half a million of dollars, beyond the contract they had opened? Let these gentlemen investigators answer. It is clear the "con-

sulting Engineer" had nothing to do with it.

There is another thing to be observed of this settlement that in paying Sanger, Camp & Co. the Board paid Page & Bacon \$343,000 in stock at *half its par value*. Now, observe that Sanger, Camp & Co., as successors of H. C. Seymour & Co., were bound to receive this stock, *at par*. It is true Page and Bacon were not obliged to receive it at all, but mark the *effect* on the stock. It increased the stock \$343,000 and obliged the Company to *throw that amount away*! Now, mark this change of contract.

1st. The Company substitute Sanger, Camp & Co. for H. C. Seymour & Co., agreeing to pay \$350,000 for profits *defuturo* in the clouds.

2d. They *release* Sanger, Camp & Co. from the Equipment, Shops, Depots, &c., and pay \$500,000 above what they would have to pay.

3d. Finally they fail in their agreement and pay \$559,857 to get out of the scrape.

4th. Lastly to cover the whole they *throw away* \$343,000 of stock to pay Page & Bacon. The sum of what they actually paid to change the contract with H. C. Seymour & Co. was as follows:

Equipments, Shops &c.....	\$500,000
Settlement with Sanger, Camp & Co.....	559,857
Thrown away Stock.....	343,000
Change of Contract cost.....	\$1,402,857
Discounts, Interest, &c.....	597,000
Change of Contract in regard to Grades.....	230,000
These Items.....	\$2,229,857

After this no one will doubt what caused the *extra cost* of the St. Louis end of the O. & M. Railroad. It was the *folly of the directors and nothing else*. It is unnecessary to go through with all the minor items. Most of them are of the same nature. One item in relation to "*commissions*" allowed Mr. Mitchel deserves a remark. The Committee say that the Board, by resolution, agreed to pay Mr. Mitchel two per cent on all *stock* that he should prove taken, and *one* per cent on the *bonds* of the Company negotiated by him. He did negotiate \$2,750,000 in the Seymour contract, which became absolute when the Board confirmed that contract, and \$2,750,000 in stock. He was entitled *legally* to \$82,500, for this negotiation. The St. Louis Board actually paid (for their pet) \$22,000. Did they pay any more, than they should by their contract? Mr. Mitchel *subsequently* negotiated these bonds for H. C. Seymour & Co. in London. Did that vitiate the contract of the Board? or had they any business with it?

The truth in this matter is that the St. Louis Board threw the burden of *their duties* on Mr. Bacon, Mr. Mitchel and others, who were only their agents. If, as we suppose, the St. Louis Board is really the creation of Mr. Bacon, then he is the more responsible, but even that does not take from them the moral or the legal responsibility of attending to their own duties and attending to them faithfully.

In closing we give notice that if ever we get a full statement of accounts at this end we shall criticize it with equal freedom and fairness.

#### THE RAILROAD MURDER IN NEW JERSEY.

Railroad murder in New Jersey! Wholesale slaughter on the Camden and Amboy Railroad! The Railroad massacre at Burlington! Such are the startling titles copiously accompanied with exclamation points, that we find at the head of severe and censorious articles in nearly all our exchanges. The writers of these articles spare no epithets, no exhibitions of wrath on the company; but here they end. They see no blame attached beyond the company, and, indeed, even exonerate all other parties. Let us see how far this is just.

In this matter we do not wish to be understood as underrating the importance of double tracks and protected crossings. The *Record* has always, in public and private, advocated these measures, and we trust always will; but we do believe that in accidents of this character there is recklessness—*criminal* recklessness—somewhere, and that the odium of this charge, whatever it may be, should be borne by the proper party.

How then stands the evidence. Dr. Heineken's statement:

I was driving to Burlington for the purpose of crossing to Bristol, but went through Florence to visit some patients in that place. I was turning from the river road into the Bordentown road by a side road, which crosses the Railroad at the place where the accident occurred. I heard no whistle—no notice of any train. I saw no train pass—and on looking both up and down the railroad saw no train.

I drove on to the railroad, but on arriving close to the railroad, I heard a rustling noise of cars moving. I immediately reined up, but the motion was so rapid, that the horses only baled on the rails. The train was positively moving at the rate of thirty miles per hour. I was driving at about ten miles per hour. The cars struck and killed the horses, broke and upset the carriage, containing my wife, her father, Thomas Antrim, Esq., his wife, my child, and myself. I was thrown out on to the ground. I bear the mark of the concussion on my shoulder. My family were only slightly injured.

I attribute the melancholy accident to the engineer not ringing the bell nor giving any alarm, but backing the train at the almost destructive rate of thirty miles an hour.

I have been cautious from a preceding accident—a wagon containing several members of my family having been broken during my absence by the fright of the horse, a few years ago. I am an elder of Dr. Miller's Presbyterian Church, at Columbus, where I have been practicing medicine for the last thirty-two years.—*Phil. Ledger.*

The gist of this testimony is plainly this; that Dr. Heineken was using all reasonable diligence to inform himself of the safety of crossing at that moment; that he is a respectable man, his father-in-law being Thos. Antrim, Esquire; that he deserves sympathy for his injuries; that he was particularly cautious and is worthy of credence, as he is an elder of Dr. Miller's Presbyterian Church; and that the whole cause of the accident was that the engineer did not ring the bell or blow the whistle. Now let us see how far this testimony accords with fact. Dr. Heineken says he looked up and down the track, but saw no cars coming. It was stated at another time that trees intercepted the view.



Mr. Gummere, of Burlington, stated :

I have made measurement at the place of the accident; the distance from certain bushes on the triangular lot, near the railroad, to the road, was found to be 140 paces; I calculated, by the eye, the distance up the river road to the point where the carriage was said to be at the time when the train passed up, at 300 yards; nothing obstructed the view of the road from that point.

The jury also satisfied themselves by actually visiting the ground, that such was the fact. The railroad then was in clear view of the highway for 300 yards, yet Dr. Heineken looked up and down the track and saw no train.

But it is answered that the parties in charge of the train should have seen the carriage approaching and stopped the train. The absurdity of this position is too great to need reply or comment. Private vehicles are generally expected to wait for public ones. Parties in charge of the train should have given the usual signal, and it is testified by some that they did. If they did, they then discharged all their duty towards the occupants of the carriage.

Dr. Heineken then could have seen the train, and so far is responsible in point of vision.

He is also responsible in point of sound. He heard Mrs. Cook hallo to him to stop.

Mrs. Cook testified :

When I called to the persons in the carriage, they were as far from the railroad as across this room (say about forty feet), they were driving pretty fast; that made me hallo, as I thought they were not sensible of what was passing before their eyes.

Dr. Heineken admitted, on cross-examination: "I did not see her until I heard her hallo."

This was about *forty feet* from the track, and that, too, up hill, as the railroad is above the level of the highway.

Thomas Antrim testified :

It was not but a few minutes when I discovered the cars coming; we were about twenty-five feet from the road, and the horses were going at a pretty rapid rate; I was seated on the front seat by Dr.; the side curtains were up, but the back curtains were closed; when we saw the cars within twenty-five feet, it was the first time we had looked out for the cars; Dr. jerked the horses back, and I saw them jump forward, and their feet were on the track.

The Doctor himself says :

Te first notice I had of the cars approaching was a rumbling noise of the cars coming along. I then immediately drew the reins of my horses with all my force, but too late to prevent a collision; I did not see the cars at all; I just heard the rumbling which apprised me of my danger; I suppose I was ten or fifteen feet from the railroad when I first heard the rumbling.

Ten or fifteen feet, or what is more likely, *twenty-five*, as testified by Mr. Antrim, when going up hill is quite sufficient to check a carriage when going only at a rate proper to employ in approaching a railroad track at the time a train may reasonably be expected.

Dr. Heineken then could have seen the train when 300 yards distant from the track; heard a female beseech him, "For God's sake stop," when forty feet from the track. The person sitting beside him saw the train approach, when twenty-five feet from the track, and he yet drove toward the track at the rate of *ten miles an hour* according to his own testimony.

But Dr. Heineken says he neither saw nor heard, but was cautious to look up and down

the track, and bolsters up his testimony by affirming that he is an elder of Dr. Miller's Presbyterian Church, at Columbus, where he has been practising medicine for thirty-two years. Truly, such testimony needs bolstering, but to make it credible must be bolstered in a far different way than this.

But this is not all. Not only did Dr. Heineken drive recklessly on the track, but it is his habit to do so. He had nearly been dashed to atoms a short time before.

William Gilbert, affirmed—I reside in Burlington; on the day of the accident I was near the scene of the disaster; have been many times near the railroad track on a cross-road when the cars have been passing; saw Dr. Heineken near the Mount Holly railroad some time last fall; he was going out of town, and the train was coming down the road.

I was going out of town also; I saw the train and stopped of course; stopped about ten or fifteen paces from the Railroad; Dr. Heineken was behind me; and turned out and went by me, and went up to the road; the cars came on, and Dr. H. had to jerk his horse back, his head being over the track; the train was close to him when he pulled up; saw the cars coming, but heard no whistle; can't say if Dr. Heineken saw the cars or not; his opportunities of seeing were as good as mine; he was driving slowly; Dr. Heineken has a peculiar way of driving, he jerks the reins instead of using a whip.

The recklessness which caused the present awful calamity was not therefore a single incident in the career of this physician of 32 years' practice. Although he should have long before learned from the arduous duties of his profession the cares and watchings over the sick-bed, from anxious study how to save life, as a true physician only can learn the right estimate to place on the boon of existence, he yet *twice*, at least, in one year exposes his own, and the lives of hundreds of others, to almost certain destruction, in the last instance too fatally certain. That such a man, so reckless and determined, whose experience had failed to teach either the usual care for his own life or the customary respect for the lives of others, has been allowed to pass so much of his life without a guardian to control his actions and prevent his doing harm, is, to say the least, a misfortune that has been attended with serious consequences. The judiciary of New Jersey should see to it, that he is properly cared for.

In the present state of our laws, with regard to accidents, we ask what security has the traveller? If our legislatures neither compel railroad companies to adopt means to prevent accidents, not punish the recklessness of private men, who heedlessly or willfully cause them, what security has any one that some headstrong or reckless man may not do to every train that leaves a depot just what was done to this. This accident calls loudly for reform, such reforms as legislatures alone can give in full, and which they should see are rigidly enforced.

JOURNALS FOR SEPTEMBER.—We have received the September number of the American Journal of Science and Arts, the Journal of the Franklin Institute, Hunts' Merchants Magazine.

## THE CINCINNATI & CHICAGO RAILROAD. OPEN TO ANDERSONTOWN, INDIANA.

The celebration of the opening of this road to Andersontown, 120 miles from Cincinnati, took place on Friday the 7th instant. This important event was hailed with joy by hundreds of the friends of the road. The train that went up on that day, starting with a small number from Cincinnati, and increasing at every town and road-crossing, until 12 cars were filled to overflowing. When they arrived at Andersontown they were welcomed by a large assemblage of citizens and a band of music.

Immediately after dinner the people assembled on the ground where a stand was prepared for the speakers. Judge J. T. Elliott was called to the chair and the members of the Cincinnati Press, five in all, were called to act as Secretaries. Hon. Caleb B. Smith, President of the road, addressed the people, giving a brief and clear statement of the present condition of the company and of some of its past troubles, congratulating the friends of the road on the prospect of its early completion from Cincinnati to Chicago, urging all stockholders not to sacrifice their stock but to keep it until the road is finished, when it will be worth all that it calls for—asserting, that when completed and equipped it would not cost over \$35,000 per mile.

Mr. Smith was followed by Gov. Wright, of Indiana, who made a very happy and effective speech. Governor Wright said, he believed, when finished, this would be one of the most important and valuable railroads in Indiana, passing through a section of country that must become the most productive and wealthy of any in the state, the local business of which alone would furnish the road with business sufficient to make it a paying road to the stockholders.

Charles Reemelin, Esq., President of the Cincinnati and Dayton Short Line Road was called for, and spoke for some 20 minutes, giving some valuable advice to the people as well as railroad men, when the meeting adjourned and the visitors repaired to the cars to return to their homes.

This we believe will be one of the most important lines of Railroad leading to the city of Cincinnati; when completed through from Cincinnati to Chicago, it will be the longest line of road under one management going out of our city, and will not be surpassed by any other in value to its stockholders. \*

EARNINGS.—We enclose to Superintendents this week blanks for the earnings of August and hope they will promptly return them filled. It is now near the middle of September and ample time has been allowed for making up returns.



## Correspondence.

## THE RACINE &amp; MISSISSIPPI RAILROAD.

The Racine and Mississippi Railroad, incorporated by the Legislature of Wisconsin, is designed to run from the city of Racine, on Lake Michigan, to Freeport Illinois, there connecting with the Illinois Central Railroad, which runs directly to Galena and Dubuque on the Mississippi River. The distance from Racine to Freeport is 102 miles. The portion of the work now under construction, is from Racine to Beloit on Rock River, 68 miles. Estimated cost, fully equipped, in complete working order and prepared for a large traffic, \$22,000 per mile, \$1,496,000.

Amount of subscribed capital on the line of the road including city and town subscriptions is over \$1,450,000.

Amount paid in on stock and secured by city and town bonds, and farm mortgages is over \$1,100,000.

Amount converted into cash and expended on the work and for materials and equipments is over \$900,000.

Thirty miles of the line is graded, complete for the superstructure and the remainder of the grading, masonry and bridging is nearly two-thirds done and will all be completed in about sixty days. 5,075 tons (gross) of iron, was purchased in May last at low rates and nett prices, 3,175 tons of which is in hand and fourteen miles of track is laid, with from one-third to one-half mile going down daily. The balance of the iron is daily expected in New York; bills of lading having been received. All the lands required for the roadway, station and depot grounds have been procured at low prices and paid for. All the cross ties for the whole line are on the ground. Wrought iron chairs and spikes for the whole line are purchased and mostly in hand or under shipment. Six locomotives have been purchased, and two are already on the road. The company have sixty first class freight cars of their own manufacture at Racine and have purchased twenty more, together with three first class passenger cars. Twenty-six miles of the road (from Racine to the Fox River) will be opened for business next month, and forty-six miles (to Delavan) in November, thence to Beloit at an early day thereafter.

The company have lately offered for sale about \$85,000 of 7 per cent coupon bonds of the towns of Racine, Elkhorn and Rockton, all of undoubted security, and desirable for permanent investment; also about \$250,000 of bonds and mortgages on unincumbered, improved farms, guarantied by the Company, running five years, bearing 10 per cent. interest, payable semi-annually in the city of New-York.

These farm mortgages are on improved

lands owned and occupied by thrifty farmers on the line of the railroad and in the oldest and very best portion of Southern Wisconsin. The ample and reliable security, together with the high rate of interest, renders these bonds and mortgages a most desirable investment, for small or large capitalists. No mortgage bonds of the road have yet been disposed of; but as a portion of the present resources of the Company will not be available by the terms of the subscriptions in season to complete the work now under construction, as early, as is desirable, the board of directors propose to issue and offer for sale a small amount of first mortgage eight per cent. coupon bonds, running twenty years, the interest to be payable semi-annually in New York, and provide a sinking fund for their redemption.

## Railroads.

## CONDITION AND PROSPECTS OF THE MARIETTA AND CINCINNATI RAILROAD.

We regard the Marietta and Cincinnati Railroad, as one of the most important avenues for railway commerce in the West; and, therefore, watch its progress with interest. We have before us the FIFTH ANNUAL REPORT, which, with other information, in our own knowledge, we shall use to present an exposition of its condition and prospects.

The Marietta and Cincinnati Railroad was projected about the same time with the Hillsborough and Cincinnati Railroad. In fact, they were intended to be the same, making a continuous line; but, by some unfortunate misunderstanding, they became rivals, instead of colleagues, and for some time both labored under the disadvantage, which always attend an injurious competition. Fortunately, for both parties, the difficulty of negotiating bonds, attendant on the depression of the money market, compelled them to unite, which they did in February, 1854, and they are now to all practical purposes, consolidated. At the time of consolidation, the Hillsborough Railroad had been finished to Hillsborough, and was under contract to the Ohio River, though but a small part of the work was finished. By the contract of union, the eastern part of the Hillsborough Road is to be finished through Piketon and Jackson, to a junction with the Marietta Road, near Athens. On the West, they unite at Blanchester, and thence proceed fifteen miles on the Hillsborough Road to Loveland, and thence twenty-three miles on the Little Miami Railroad to Cincinnati. With this explanation, we shall now give a view of the work.

## 1. PROGRESS OF THE WORK.

Of the Chillicothe part, eighty-one miles are completed, and of the Hillsborough, thirty-seven miles, viz:

Blanchester to Greenfield.....	34 miles.
Greenfield to Chillicothe.....	23 "
Chillicothe to Byer's.....	24 "

## Hillsborough Road, viz:—

Blanchester to Loveland.....	15 "
Blanchester to Hillsborough.....	22 "
Aggregate finished.....	118 "

It will be seen that from Cincinnati East, the Marietta Road is now running ninety-six miles; viz: from Loveland to Byers. In addition to this, they run the Hillsborough Branch twenty-two miles, from Blanchester to Hillsborough.

## 2. WORK TO BE COMPLETED.

The original Road contemplated by the Marietta Company, was composed as follows:

Cincinnati to Chillicothe.....	94 miles.
Chillicothe to Marietta.....	94 "
Marietta to Wheeling.....	70 "
Whole distance.....	258 "

This comprehended both the Baltimore and Philadelphia routes. The former will connect at or near Marietta, 188 miles by railway, and will make the distance from Cincinnati to Baltimore, as follows:

Cincinnati to Marietta.....	188 miles.
North Western R. R.....	120 "
Baltimore and Ohio.....	260 "

Aggregate.....568. "

This will make the real Cincinnati route to Baltimore, being sixty miles nearer than any other.

The Philadelphia route will be made by the Wheeling extension, thus:

Cincinnati to Wheeling, as above.....	258 miles.
Hempfield Railroad.....	70 "
Greensburg to Philadelphia.....	392 "

Aggregate.....650 "

The Marietta Road has the same gauge with the Philadelphia and Baltimore Road, so as to present an *unbroken line* from Philadelphia and Baltimore to Cincinnati, an advantage of no small magnitude.

Of the 258 miles to be made, it is seen above that ninety-six miles are now running. The part from Byer's Station to Athens, near 40 miles, will be finished this Autumn, and the whole line to Marietta is rapidly constructing; so that, it is believed, the entire line from Cincinnati to the Ohio River will be finished within a year; quite as soon as the North-Western Railroad can be completed.

Of the Hillsborough line, the length, as contemplated by the contract of consolidation, will be as follows:

Blanchester to Hillsboro, (completed).....	22 miles.
Hillsborough to Piketon.....	38 "
Piketon to Junction.....	30 "
Aggregate.....	90 "

This would make the double line 348 miles in length. To those who look on the map, and see what district of country will be commanded by the Hillsborough line, and what mineral resources will be reached, it will become immediately evident that the construction of the Hillsborough branch, through to the junction, will be a remunerative operation, considered only a local work. A large district of fertile country, and different varieties of coal seams will be commanded.



## 3. FINANCIAL CONDITION.

The financial department of the Marietta and Cincinnati Railroad has been conducted as ably and uprightly, as any one in the country. Indeed, considering the great difficulties it had to encounter, and the peculiar embarrassments of the last year and a half, its financial management deserves the highest credit. The financier of the Company, has been, in general, NOAH L. WILSON, Esq., (now President of the Company,) and the Treasurer is COL. JOHN MADEIRA. These gentlemen have conducted its affairs prudently and sagaciously; so that the Company lost no credit, at a period, when nearly every Company fell greatly in the public estimation. Having survived that period, with a reputation uninjured, the Company now stands before the public, in the highest credit.

The road has been rather expensively constructed; but that expense has gone into *actual work*, and has not been lost or frittered away in a vain attempt to financier its way through insuperable difficulties.

The *capital* of the Company (*bona fide*) is unusually large, and furnishes a solid basis to sustain all the credit the Company needs.

The stock and means of the Marietta Road, considered separately, stand thus:

CAPITAL STOCK.	
Individual Subscriptions.....	\$1,655,550
County of Ross.....	300,000
“ “ Washington.....	200,000
“ “ Athens.....	200,000
City of Chillicothe.....	50,000
“ “ Marietta.....	100,000
“ “ Wheeling.....	250,000
Town of Homer.....	50,000
Pennsylvania R. R. Co.....	750,000
Aggregate.....	\$3,555,550
LOANS.	
Domestic Bonds.....	1,000,000
First Mortgage.....	2,500,000
Second Mortgage.....	2,000,000
Cincinnati Loans.....	150,000
LANDS—Value.....	250,000
Means of the Marietta Railroad.....	\$9,455,550
The Cost and Expenses of the Road have been and are to be, as follows:	
ACTUAL EXPENDITURE.	
Construction, Depots, Shops, Equipment, and all Expenses, except interest.....	\$5,612,307 00
Interest.....	442,323 81
Actual Cost.....	\$6,054,640 81
COST HEREAFTER.	
To finish from Byer's to Marietta.....	\$1,120,379
“ “ “ Marietta to Wheeling.....	1,14,3586
“ “ “ Depots.....	157,996
Aggregate Cost.....	\$8,776,602
Or, per mile.....	34,000
Excess of means we estimate to meet contingencies \$679,000. To meet the payments heretofore required, the Company have had:	
Capital Stock.....	\$3,555,550
Domestic Bonds.....	700,000
First Mortgage Bonds.....	2,000,000
Cincinnati Loan.....	150,000
	\$6,405,550

In addition to this, they have had some part of the Second Mortgage Loan; but, from the whole must be deducted that part of the Stock especially applicable to the part of

the Road between Marietta and Wheeling, and which will be applied in finishing that part.

It is understood that the President of the Company has negotiated the Second Mortgage Bonds, which, with the sale of Domestic Bonds, and \$500,000 of the First Mortgage Bonds reserved for the part between Marietta and Wheeling, will constitute ample means to complete the Road. Its friends may, therefore, be congratulated, and may well be regarded as a triumphant success.

The Report of the Railway speaks very properly of the effects likely to result from the recent set-back in railway affairs. The President says:

“Much permanent good and no permanent evil will result from the ordeal through which the Railway Companies of this country have passed. Such a crisis was inevitable and desirable. It came at precisely the right period of time. Had it come upon this country one year earlier, it would have found thousands of miles of Railway upon which vast sums had been expended, a large portion of which would have been lost for the want of money to complete them. Had the crisis been postponed a year, a vast number of new enterprises would have been under way, and whether completed or not, the effects would have been equally disastrous. If completed, they would have been unprofitable themselves and ruinous to other works now successful and profitable.

“The embarrassments from which the great Railway interest of the country are emerging will secure a scrutiny into Railway management; an economy in the administration of Railway affairs; a thorough system of guards and checks in the transaction of their business; a rigid system of accountability on the part of the officers and managers; an abridgement of the powers of the officers and Directors; greater watchfulness on the part of shareholders, and a proper investigation by capitalists into the real merits of new schemes, to ascertain whether they are actually needed, and possess the elements for traffic which are necessary to sustain them.”

The FUTURE of Railways will be very different from the past of the last three years. Stocks will rise; credit will be enlarged; the business of the Great Western Railways will illustrate their superiority, as an investment of capital.

The internal advantages of the Marietta Railway for a profitable local traffic, are unequalled. At 120 miles from Cincinnati, it penetrates a mineral region of unsurpassed richness. The report says:

“At about 125 miles from Cincinnati, on the borders of Vinton, and Jackson counties, this Railway strikes the “Mineral Region” of Ohio. The more important minerals found in that region are: COAL, IRON, BUHR-STONE, SALT, and FIRE CLAY. All of these are

abundant, and the most valuable are in inexhaustible quantities.

“The coal of the county of Jackson is estimated by Professor MATHER to be “equal to a solid unbroken stratum, fifty miles in length, five miles in width, and nine feet in thickness. This amounts to about *thirty-one thousand, three hundred and fifty-four millions, five hundred and twenty thousand bushels!* or more than enough to supply a city of half a million of people with coal in abundance for a thousand years.

“This is the supply of the upper veins, without *mining* to those great depths which are not uncommon in England. The counties of Vinton and Athens are equally as rich as Jackson County.

“The iron region between the Scioto and Hocking Rivers, in the belt crossed by this Railway, is also estimated by Prof. MATHER to contain over *three hundred square miles of iron ore*; and the six counties in which it lies are capable of supplying enough for millions of people for thousands of years.”

## NORTHERN CENTRAL R. R. COMPANY.

The Northern Central Railway Company, is the result of a union of four Companies heretofore owning the line of Railroad, partly complete and partly under construction, extending from Baltimore, Md., to Sunbury, in Pennsylvania. This union was formed under the authority of acts passed respectively by the Legislatures of Maryland and Pennsylvania in March and April, 1854, by which the Companies were empowered to form a consolidation on the terms and conditions therein prescribed.

The four Companies thus merged into one were—

The Baltimore and Susquehanna, incorporated by the State of Maryland in 1828;

The York and Maryland Line, incorporated by the State of Pennsylvania in 1832;

The York and Cumberland, incorporated by the State of Pennsylvania in 1846; and

The Susquehanna, incorporated by the State of Pennsylvania in 1851.

To the two companies last mentioned in this enumeration, it is necessary to make but a brief reference.

The York and Cumberland came into operation in 1851. Its road extends from York to Bridgeport, a distance of twenty-six miles. At this point it intersects the Cumberland Valley Road, and, by the bridge belonging to that road, has an immediate connection with Harrisburg. Its capital stock was \$530,000; its entire cost \$735,750,—being somewhat less than \$30,000 per mile. This amount was raised by an addition to the fund subscribed for stock in a loan of \$200,000 obtained on the bonds of the Company, and by a small appropriation of the first earnings. The road was successfully managed, and, for the eighteen months preceding the consolidation, made regular half-yearly dividends at the rate of 6 per cent. per annum—punctually paying the interests on its bonds and keeping clear of embarrassment from debt.

The other Company—the Susquehanna—was created with a view to extend the line of communication from Bridgeport to Sunbury, and, if requir-



ed, as far as Williamsport on the Western branch of the Susquehanna;—a continuation, which late improvements by other companies have rendered unnecessary. The distance from Bridgeport to Sunbury is fifty-four miles. About twenty-six miles have been so far completed as to be ready for the rails, and a considerable amount of work is done at intervals throughout the whole line. The location of the road is upon the right bank of the Susquehanna for eight miles above Bridgeport, where it crosses over to Dauphin, and, passing up to Sunbury on the left bank, it intercepts in its progress four branch roads leading out of the great coal basins of Dauphin, Lykens Valley, Mahanoy and Shamokin, which now await its completion to turn upon it a trade which may not be inferior to that of the Schuylkill mines in the opposite direction.

The amount expended on this road at the date of the consolidation was about \$800,000. This fund was supplied in part by a loan made to this Company by the York and Cumberland, to the amount of \$500,000, which the latter Company obtained by an issue of its own bonds guaranteed by the city of Baltimore;—the residue was supplied by the contractors who contributed work, made advances, and assumed liabilities to an amount little short of \$300,000; which claims of theirs were liquidated by the Company previous to the consolidation, and, by an arrangement which formed one of the stipulations of the Articles of Union, were agreed to be settled by the delivery of the bonds of the Northern Central Railway Company to the contractors for the amount due;—an arrangement that has been duly consummated by the present Board.

The affairs of the Baltimore and Susquehanna Railroad Company require a more extended notice. That Company being in possession of the machinery and equipment necessary to the conduct of the business of the entire line, and being obviously interested in having the whole transportation under its own control, had undertaken this duty upon each extension of the road. The York and Maryland Line Company was, in fact, but a portion of the Baltimore and Susquehanna. It was wholly owned by the latter Company, and, preserving only the form of a separate corporation, was, to all substantial or useful ends, exclusively governed by it. In speaking therefore of the Baltimore and Susquehanna Road, we shall be understood to refer to the ownership and management of the entire road from Baltimore to York.

The Wrightsville Road between York and Wrightsville, 13 miles, was so far owned by the Baltimore and Susquehanna Company, as to be virtually subject to its exclusive direction. This latter Company held a majority of the stock valued at par, at \$125,765, and had advanced money which by the most recent statement formed a debt of \$129,850, of which \$95,000 was represented in the bonds of the Wrightsville Company, and secured by mortgage.

The Baltimore and Susquehanna Road, with its extension to York, and with the amount invested, as before described, in the Wrightsville Road, and including its whole equipment of machinery, working power, depots and other appurtenances, was constructed and put into operation by means of the following funds:—

1. A subscription by private persons to the stock, to amount of.....	\$250,000
2. A subscription to stock by the State of Maryland.....	100,000
3. A subscription by the City of Baltimore.....	100,000

Making the total amount of stock subscribed, \$450,000

To these stock subscriptions were added,	
1. Sandy loans from the State of Maryland, between the year 1834-39, amounting to.....	\$1,884,045
2. A loan from the city of Baltimore upon which from the year '40 no interest has been paid, and which, it was finally agreed by the city, should be placed on the footing of stock until the Company should pay off its debt to the State.....	850,000
3. A loan on the Company's bonds with a preferred lien, authorized by act of 1850, with a view to increasing the stock of the road.....	150,000

Actual amount of funds supplied to the construction and equipment of the road..... 3,334,045  
Upon which amount of capital the Company was indebted for interest, at the date of the consolidation.....

1. Arrears on \$1,884,045 funded by the State, March 1, 1851, on issue of Company's bonds without interest for fifteen years.....	1,035,980
2. Arrears of interest, not funded, on same, from 1851, to date of consolidation, about.....	400,000

Total of stock subscription and debt.....	\$4,770,025
Deduct amount invested in Wrightsville Road.....	\$255,615
And in Westminster Branch.....	150,000
	<u>\$4,364,410</u>

Which expended on fifty-seven miles of road, is equivalent to a fraction over \$76,000 to the mile.

The Directors say our attention is directed in this inquiry to the series of annual official statements published by the Company from the year 1844 to 1854, both inclusive—comprehending a space of eleven years, and commencing in the fifth year after the road was opened from Baltimore to York.

It appears by these statements—

1. From the general account of Receipts and expenditures, in each year, and the balance reported on hand in each account, that the Company expended in the eleven years the sum of \$41,343 over and above its total gross receipts during that period.

2. From the annual accounts of receipts from transportation, and the expenditures belonging to the same account, that the aggregate amount, Of gross receipts for the 11 years was..... \$3,127,181  
Equal to an annual average of..... \$284,289,  
And the aggregate expenditure was..... 2,227,462  
Equal to an annual average of..... 202,496

Yielding an aggregate net revenue of, \$899,719  
And yearly average of, \$81,793

Showing the average of expenses on transportation to be in the ratio of about 70 per cent. to the receipts; a ratio which we find rather increased during the last three years of the term,—the expenditures of 1852, 53 and 54, being respectively in the proportion of 77, 68 and 73 per cent. to the receipts.

3. That during this period—the annual interest on the State loan being a little under \$113,000—The Company paid on this interest account but \$448,691, which was equal to an average annual payment of \$40,790,—which would represent a capital of about \$680,000, computing interest at six per cent.

Regarding this \$680,000 as the only amount of debt on State loan which has been really provided for by the Company, and looking also to the fact that the Company paid no interest during this term to the city, on the loan of \$850,000, we may state the responsibility actually incurred by the Company, and met by them in providing for the construction and equipment of the road, as follows:

By stock subscribed and paid.....	\$450,000
By loan from the State upon which interest was paid.....	680,000
By interest on this amount.....	448,691
By loan on Company's Bonds, 1851.....	150,000
Interest paid on these.....	27,000
Sinking Fund on do.....	20,525

Making a total of..... \$1,776,216

All the residue of the capital subscribed and borrowed, which we have stated above at \$4,364,410, was virtually sunk in the incapacity of the Company to meet its engagements; the amount so sunk being, on this computation, about \$2,583,194.

These statements will attract the earnest attention of the Stockholders. They show not only an extraordinary outlay in the first cost of the road, and a very disastrous embarrassment attending it, but also an unusually high ratio of expense in conducting the ordinary business of the road since it has been constructed; a ratio or proportion to the gross proceeds very considerably above what is supposed to be the proper limit of the prosperous roads of the country.

These results are accounted for by the present directors in the fact of the inexperience of the times when the road was first built, the uncertainty of its original object and design, and the long delays attending its progress, and the unprofitable prosecution of business. The rate of toll charged by the Baltimore and Susquehanna was too low, and in addition to this, the company created for itself rivals in the shape of private transporters, whose loaded cars they carried at low rates of freight. These things, being continued for a series of years, brought this company into the difficulties enumerated.

Such being the condition of the Baltimore and Susquehanna Railroad, its union with the two last of the four consolidated companies, presented for them no very tempting inducements unless that road could be freed from the great body of its debts. Accordingly, in asking for acts to authorize the consolidation, the companies made application to the State of Maryland, at the same time, to obtain from the State a contingent engagement, in the event of the consolidation being consummated, to convey and release to the new company the whole interest of the State in the road, for an annuity of \$90,000, secured by the pledge of the joint property. This offer was acceded to on the part of the State, and that debt thus cancelled. The city of Baltimore subsequently also released its interests in stock and mortgage debt, amounting to \$950,000, to the consolidated company.

The entire property of the company may therefore thus be described:

1. Eighty-three miles of road from Baltimore to Bridgeport, with bridges, sidings, way stations, &c., &c.—all in good order—valued at \$30,000 per mile.....	\$2,490,000
2. Road-bed from Bridgeport to Sunbury, of which Twenty-six miles are ready for the rails—estimated at cost.....	800,000
3. Real estate, other than road-bed, consisting of property in the city of Baltimore—Bolton Depot, lots adjoining, and between that and the Calvert Station—lot and improvements at Calvert Station—property at City Block—contingent grants at Canton—lots and improvements in York, Harrisburg, Wrightsville and Columbia—the whole estimated at.....	300,000
4. Rolling stock of the Company—Twenty-six locomotives, 620 burden cars, 27 passenger cars, 6 baggage cars, 4 horse cars, &c., &c.,.....	400,000
5. Stock in Wrightsville Road, valued at.....	\$40,000
Mortgage Bonds.....	95,000
Debt.....	34,850
	<u>169,850</u>



Westminster Branch, nine miles, which cost about \$150,000—valued at..... 50,000  
6. Machinery in work shops, tools, materials, work finished and unfinished, fuel on hand cross-ties and rail iron,..... 62,000

Furnishing an aggregate estimated value of \$4,271,850

In stating the debts or liabilities which are charged upon this fund, we have regarded the State as a creditor only to the amount stipulated for in the new mortgage which was executed on the 27th of January last, treating the previously existing debt as extinguished by the arrangement which was consummated at that date.

This statement will also exclude the interest of the city in the reversion of the \$950,000, inasmuch as the terms of the City's contract with the Company, will have been complied with long before the expiration of the period at which the reversion would become available.

With this explanation, we present the obligations of the Company as they now stand.

1. The annuity to the State, created by the deed of January 27, 1855, in pursuance of the act of 1854, \$90,000—equal to..... \$1,500,000  
2. Bond debt of the York and Cumberland Company on bonds issued to furnish funds to make the road to Sunbury, and guaranteed by the city of Baltimore,..... 500,000  
3. Original bond debt of the York and Cumberland Company, to complete this road,.... 200,000  
4. Bond debt of Baltimore and Susquehanna Company, to purchase rolling stock,.... 150,000  
5. Bonds lately given to contractors on the road to Sunbury, in pursuance of Articles of Union, being for work done, damages paid, &c.—about..... 300,000

Making of permanent debt on which annual interest is to be paid,..... \$2,650,000  
Requiring an annual provision of \$159,600.

To provide for a portion of these debts the Company hold two sinking funds:

The 1st on the debt of \$150,000 of the Baltimore and Susquehanna Company, amounting now to..... \$20,525  
The 2d on the \$300,000 debt of the York and Cumberland Company, amounting to..... 29,763

Giving an aggregate, at this date, of..... \$50,268

The debts of the Company, as above enumerated, are secured by liens of the road in the following order of precedence.

1. The bonds for \$150,000, issued by the Baltimore and Susquehanna Company, are secured by the first lien on the road from Baltimore to York.

2. The bonds of the York and Cumberland Company for \$200,000, secured by the first lien on the road from York to Bridgeport.

3. The bonds for \$500,000 of same Company, guaranteed by the city, have the second lien on the road from York to Bridgeport, and first lien on the road from Bridgeport to Sunbury.

4. The \$90,000 annuity to the State, secured by second lien on road from Baltimore to York, and by liens on the rest of the road next after those above enumerated.

5. The contractor's bonds for \$300,000, redeemable at the pleasure of the Company, and secured by a lien on the whole road, the last in order.

Total amount of property as estimated above, exclusive of sinking funds,..... \$4,271,850  
Total of debts as above,..... 2,650,000

Surplus assets above incumbrances,..... \$1,621,850

The capital represented in stock, by arrangement of the conditions of union, amounts to \$1,860,000; which amount is divided into shares at the par value of \$50, giving, in all, 37,200 shares; which are apportioned among the stockholders in conformity with the distribution agreed upon by the Companies in the Articles of Union

### ENGLISH RAILWAYS.

The following condensed statistics of the results of English Railways for 1854 is from the pen of a correspondent of the *Hamilton Spectator*.

I recently forwarded some extracts from the Government railway report, and as railways now command much attention in Canada, I shall add some further particulars. The total length of railway completed in the United Kingdom at the close of 1854 was 8,054 miles; the length ordered to be constructed, 4,752; total, 12,806. Of the portion already finished, the difference in the gauges stands thus:

Narrow (including the Irish gauge).....	7,201 miles.
Broad.....	646
Mixed.....	206
	8,054

At the end of 1854, there were \$4,410 stations, on 7,083 miles. On these were employed 90,409 persons, averaging 11.5 per mile. In 1854 the first class passengers were only 13.3 per cent; the second class 36 per cent; the third class 59.7 per cent. With respect to the total returns for the United Kingdom in 1854, the number of passengers in each class, and the receipts were as under:

	No. of Passengers.	Receipts.
First class.....	14,517,467	£2,738,458
Second Class.....	317,830,655	3,264,545
Third Class.....	58,732,048	2,999,464
Mixed.....	26,543	172,478
	111,206,707	£9,174,945

The working expenses in England were 45 per cent on the receipts; in Scotland 43 per cent; in Ireland, 46 per cent. It is thus estimated:

	Miles.	Average outlay per mile.
In England.....	5,924	£1,352 3 6
In Scotland.....	986	961 2 8
In Ireland.....	875	464 9 9

The total receipts from goods traffic in the United Kingdom in 1854 amounted to £11,940,779, against £9,474,802 in 1853, an increase of 16½ per cent.

In England the maintenance was 14.5 per cent; in Scotland, 15.9; in Ireland 14.6 of the whole expenditure.

The cost of locomotive power, including the expense of rolling stock, was, in England 39.7 per cent; in Scotland 42.9 per cent; in Ireland 44.3 per cent.

The traffic charges in England amounted to 26.1 per cent; in Scotland, to 20.5; in Ireland to 23.4 per cent.

The miscellaneous expenses, including police, watchmen, compensation, &c., were: for England, 11.6 per cent; for Scotland, 16; for Ireland, 14.6.

The rates and government duty amounted in England to 8.1 per cent; in Scotland, to 4.7; in Ireland, to 2.6. The difference in favor of Ireland arises from their being no passenger duty charged in that country.

The expenditure per mile was: for England 31.28d; for Scotland 28.42d; and for Ireland 29.18d.

The receipts per mile were, for England, 68.82d; for Scotland, 59.33d; for Ireland 61.10d.

### IMPORTANT RAILROAD DECISION.

At the last session of the Supreme Court in Rutland, a case was decided, in which were established some principles of great importance, as well to the railroad companies as to those doing business with them. The suit was brought by William Kimball against the Rutland and Burlington Railroad Company, to recover the injuries to his cattle in going from Brandon to Cambridge, Massachusetts. It appeared that by the printed freight tariff, the owners of cattle were required to load, unload and feed them at their own expense, and to assume all risk of injury to them from all sources; and the company repudiated all risk, unless specially agreed to and an additional price paid of 25 per cent. upon tariff rates. The regulation was brought to the knowledge of the plaintiff by a ticket which was furnished him, but he omitted to pay the higher price. Several of his cattle having been injured on the way so as to cause their death, he brought this suit to recover the value of them.

The Court decided the following points: If the cattle had been delivered to the defendants as common carriers, no special agreement having been made, they would be responsible for the safe conveyance and delivery of them. But it was competent for the Company, by a special agreement, to change their relation from that of a common carrier to that of a private carrier, and when so changed, their liabilities will be measured by the special agreement. In this case, the provision in the freight tariff that a higher rate should be paid when the Company assumed the risk of transportation, and the omission of the plaintiff, who knew the provision, to pay the higher rates, constitutes a special agreement, by which the Company was discharged from liability as a common carrier, and remained liable only for the breach of of the express contract.

We understand that, since this decision, railroads are adopting two rates of freight, not only for cattle, but for glassware, stoves &c. the ordinary tariff being that at which they will carry on the owner's risk, and a higher one when they assume the liability of common carriers.—*Windsor Journal*.

**ALBANY AND SUSQUEHANNA RAILROAD CO.**  
—The following named persons were yesterday elected Directors of this Company for the ensuing year:—Ezra P. Prentice, Robert H. Pruyn, Andrew White, Cornelius Vosburgh, of Albany; E. C. Delavan, Balston Centre; E. R. Ford, Oneonta; Charles Courter, Cobleskill; John Cook, Worcester; Arnold B. Watson, Unadilla; Lewis Northrup, Harpersville; Edward Tompkins, Levi Dimmick, Binghamton; Benj. F. Wood, Duanesburgh.—*Albany Express*, Sept. 5th.

**DESTRUCTION OF A RAILROAD BRIDGE BY FIRE.**—The alarm of fire last evening proceeded from the light caused by the burning of the Rensselaer and Saratoga Railroad Bridge, first North of Green Island. It was 550 feet in length, and cost \$12,000. It is totally destroyed. There was one insurance of \$5,000, but whether any more or not, we could not learn. The fire is supposed to have been the work of an incendiary, as no train had passed for nearly three hours before the fire broke out.—*Albany Journal*, Sept. 1.

Another costly reason why wooden bridges should be abandoned on railroads.



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

COMPANY.	NATURE OF BOND.	INT. DUE.	OFF'D.	ASK'D.	SHS. OFF'D.	ASK'D.
Alabama and Tennessee.....	1st mortgage, convertible in 1872	7 1872				
Baltimore and Ohio.....	Transferable. Taxed.....	6 1883		79%	100	44 44
Do do.....	Coupons. Not Taxed.....	6 1875				
Do do.....	" ".....	6 1880				
Do do.....	" ".....	7 1860				
Do do.....	" ".....	6 1885				
Bellefontaine and Indiana.....	1st mortgage, convertible.....	6 1866		98	50	45
Buffalo and Penn. State Line.....	1st mortgage, not convertible.....	6 1866				
Chicago and Rock Island.....	1st mortgage, convertible.....	7 1870	96	97	96½	98
Chicago and Mississippi.....	1st " ".....	7 1862				
Do do.....	2d " ".....	7 1874	85			
Chicago and Aurora.....	1st " ".....	7 1866				
Cincinnati, Newcastle and Mich. Real Estate.....	" ".....	7 1859		100	109	111
Cleveland, Columbus, and Cin'ti.....	1st mortgage, convertible.....	7 1855				
Do do.....	No mortgage, convertible.....	7 1855				
Cleveland and Mahoning.....	" ".....	7 1861				
Cleveland, Paines, & Ashtabula.....	1st mortgage.....	7 1861			100	
Do do.....	2d " not convertible.....	7 1861				
Cleveland and Pittsburgh.....	1st " convertible.....	7 1860			70½	71
Do do.....	2d sec. convertible.....	7 1873				
Cleveland and Toledo.....	1st mort. not conv. '73.....	7 1863	93	94	50	87½ 89
Cleveland, Zanesville, & Cin'ti.....	" ".....	7 1867			80	82
Cincinnati, Hamilton & Dayton.....	1st mortgage " till 1855.....	7 1867				
Do do.....	2d mortgage.....	7 1880	85½	88		
Cincinnati, N. C. & Michigan.....	1st mortgage, real estate, conv.....	10 5 & 10 y's	41½	42		
Cincinnati Western.....	" ".....	8 " "	44½		12½	14
Cincinnati, Wil. and Zanesville.....	2d " ".....	7 " "	65	66	40	45
Cincinnati, Ind. and Chicago.....	" ".....	7 " "				
Cincinnati and Chicago.....	Real Estate.....	8 1859	40	41	14	15
Columbus, Piqua and Indiana.....	1st mortgage, convertible.....	7 1862	75	76		
Do do.....	2d " ".....	7 " "	60	61		
Columbus and Xenia.....	1st mortgage, convertible.....	7 1859			91	93
Covington and Lexington.....	2d " " till 1862.....	7 1883	66	67	50	29 31
Do do.....	Income.....	6 " "	50½	51	50	20 22
Dayton and Michigan.....	1st " ".....	7 1867			50	20 22
Dayton and Western.....	1st " ".....	7 1862			20	21
Dayton, Xenia and Belpre.....	1st " ".....	7 1864	26	30		
Eaton and Hamilton.....	1st mortgage.....	7 1862		60	25	45 50
Erie and Kalamazoo.....	1st mort. guaranty Mich. S. R. R.....	7 1862				
Evansville and Crawfordsville.....	1st mortgage.....	7 " "	80	81		
Fort Wayne and Southern.....	" ".....	7 " "			12½	14
Franklin and Warren.....	" ".....	7 " "				
Galena and Chicago Union.....	Pledge of second section, conv.....	10 1853-6	92½		100	114½ 115
Hillsboro and Cincinnati.....	1st mort.....	7 1878	63	64	50	25 27
Illinois Central.....	1st mortgage, not convertible.....	6 1875	85½	86	100	96 97
Do do.....	Freeland.....	7 " "	88½	89		
Indiana Central.....	1st mortgage, convertible.....	7 1866	63½	75	50	50 52
Do do.....	" ".....	10 1857	80		50	
Indianapolis and Bellefontaine.....	1st " ".....	7 1860-1	75		25	50 50
Indianapolis and Cincinnati.....	2d mortgage.....	7 " "	80	82	50	63½ 65
Indianapolis and Lafayette.....	" ".....	7 1861			50	
Jeffersonville.....	1st " not ".....	7 1861			50	16
Junction (Ohio).....	1st " ".....	7 1867			50	11 15
Do Indiana.....	Real Estate.....	10 " "	72	73	10	15
La Crosse and Milwaukee.....	" ".....	8 1864	77	82	100	
Little Miami.....	1st mortgage, not convertible.....	6 1883	86	90	50	97 99
Do do.....	" " till 1855.....	7 1861				
Louisville and Nashville.....	" " unconvertible.....	7 1858	9		100	
Lyons, Iowa, Central.....	1st mortgage, convertible.....	7 1873				
Mad River and Lake Erie.....	1st mortgage, convertible till 1855.....	7 1855-6	75		50	35 40
Do do.....	2d " ".....	7 1866	75			
Do do.....	Dividend.....	7 1860	75			
Madison and Indianapolis.....	1st mortgage, convert. after 1853.....	6 1861			50	
Marietta and Cincinnati.....	Domestic Bonds.....	7 " "			50	27½ 30
Do do.....	United 2d " ".....	7 " "			50	
Hillsboro and Cincinnati.....	1st " ".....	7 " "				
Maysville and Big Sandy.....	" ".....	6 1873			50	
Maysville and Lexington.....	1st mortgage, convertible.....	6 1873				
Memphis and Charleston.....	" ".....	8 1860	97		99½	100
Michigan Central.....	No mortgage, convertible.....	8 1855-6				
Do do.....	" " not ".....	8 1857-8				
Michigan Southern.....	1st " ".....	7 1860-90	100		102½	103
Milwaukee and Mississippi.....	1st " ".....	8 1862				
Mobile and Ohio.....	1st mortgage 6s. 1884.....	7 " "				
Nashville and Chattanooga.....	" ".....	10 1858-62			50	17 18
New Albany and Salem.....	mortgage on 1st section.....	8 1864-75				
Do do.....	1st " on other sec. con.....	6 1873				
New Castle and Richmond.....	1st " convertible.....	7 " "			100½	104
New York Central.....	" ".....	7 1867			100	53½ 54
New York and Erie.....	1st mortgage, not convertible.....	7 1871	83½	88		
Do do.....	2d " convertible.....	7 1883	101	101		
Northern Cross, Ill.....	1st mortgage, convertible.....	8 1873				
Northern Indiana.....	1st " not convertible.....	7 1861	98			
Do do.....	1st " Goshea linc.....	1868	90	91	105	106
Do do.....	Construction Bonds.....	7 1861	61		40	46
Ohio Central.....	1st mortgage, convertible.....	7 1867	50	52	9½	12
Ohio and Mississippi.....	2d " ".....	7 1867			50	14 18
Ohio and Indiana.....	1st " ".....	7 1865				
Ohio and Pennsylvania.....	" ".....	7 1872			50	
Do do.....	Income. No mortgage, convert.....	7 " "				
Pacific, Mo.....	" ".....	7 " "				
Panama.....	2nd issue.....	7 " "	107½	105	107½	108
Parkersburg (or N. western Va.).....	Guar. City of Balt.....	7 1873				
Pennsylvania.....	1st mortgage, convert. till 1860.....	6 1880			50	43½ 40
Peru and Indianapolis.....	1st " ".....	7 " "			25	30 31
Rock River Valley Union.....	1st " ".....	7 1872			50	
Sandusky and Maumfield.....	1st " ".....	7 1860				
Do do.....	2d " ".....	10 1853-7				
Scioto and Hocking Valley.....	1st " income.....	7 1861	50	51	50	50 51
Southwestern, Tennessee.....	" ".....	7 " "				
Springfield and Columbus.....	" ".....	7 1865				
Stevensville and Indiana.....	1st mortgage, convertible.....	7 1865				
Terre Haute and Alton.....	1st " ".....	8 1862-72	91	93		
Do do.....	2d " ".....	8 1865	83½	85		
Terre Haute and Richmond.....	1st " ".....	6 1866				
Toledo, Norwalk and Cleveland.....	1st " ".....	7 1863	87	88	50	
Do do.....	2d " ".....	7 " "				
Do do.....	Guar. of C.....	1883				

## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

	INT.	DUE.	OFF'D.	ASK'D.
U. S. Loan.....	6 1856	105	105	
Do.....	6 1862	112½	113	
Do.....	6 1867	117½	120	
Do.....	6 1868	117½	120	
Do (int. ceased July 1).....	5 1833		102	
Do Coupons.....	6 1862		118	
Do.....	6 1867		118	
Do.....	6 1853		101	

## STATE.

Alabama.....	5			
California.....	7 1870	87	88	
Arkansas.....	6			96
Georgia.....	6		98	99
Do.....	7			
Illinois Canal Bonds.....	1860			
Do do registered.....	1860			
Do do.....	1847			
Do do registered.....	1847			
Do do Internal Impt.....	6 1847	106½	108	
Do Interest do.....	5	64	64	
Indiana.....	5	84½	86	
Do.....	2½	53	54	
Do Canal Loan.....	6			
Do do preferred.....	5			
Do special preferred.....	5			
Kentucky, 30 years.....	6 1871	103		
Do 16 years.....	6	102		
Do large bonds.....	6 1869-72	100½		
Do.....	5			
Louisiana.....	6	95½	96	
Michigan.....	6	97	98	
Missouri.....	6	93	96	
New York.....	6 1860-61	112	114	
North Carolina.....	6	97½	100	
Ohio.....	6 1856	100		
Do.....	6 1860	105½	106	
Do.....	6 1870	110	111	
Do.....	6 1875	112	113	
Do.....	5 1855			
Pennsylvania.....	6			
Do.....	5 1870	88	89	
Tennessee, long loan.....	6 1892	95½	98	
Do Coupons.....	5	81	83	
Virginia Coupons.....	6 1886	98½	100	

## CITY SECURITIES.

Albany.....	6 1871-81	99½		
Allegheny.....	6 1875-7	80		
Baltimore.....	6 1870-90	99½	100	
Do.....	5 1865			
Boston Bonds.....	4½ 1860			
Chicago.....	6 1873-7	92½	95	
Cleveland.....	6 1879	103½	105	
Cincinnati.....	6 1860-92	96	96½	
Do.....	6 1897			
Do.....	5 1864			
Do W. W.....	6 1865			
Covington.....	6 1857	80	80	
Jeffersonville.....	6 1890	70		
Louisville.....	6 1880	86½	87	
Memphis.....	6 1882	72½		
New York.....	7 1857	100½		
Do.....	5 1858-00	98	99	
Do.....	5 1870-5	97	100	
Do.....	5 1890			
Philadelphia.....	6 1876-90	94½	95	
Pittsburgh.....	6 1869-78	81	82	
Do coupons.....	6 1883			
Racine.....	7 1873	83	86	
St. Louis.....	6 1870	85	86	
Wheeling.....	6 1873	81½	83	

## COUNTY BONDS.

Bourbon, Ky.....	6 1881	77½	80	
Darke, O.....	7			
Fairfield, O.....	7 1862			
Fayette, Ky.....	6 1881-3	75	75	
Hancock Co.....	7	70	75	
Mason, Ky.....	6 1881	73	76	
McCraken Co. Ky., endorsed by New Orleans and Ohio R. R.....	6 1866	80	85	
St. Louis.....	7 1871			

## BANKS.

American Exchange Bank, N. Y.....	105½			
Ohio Life Insurance and Trust Co.....	98	100		
Washington Insurance Co.....	84	85		
City Insurance.....	70			
Cincinnati Insurance Co.....	84			
National Insurance.....	75	80		

## KENTUCKY.

Bank of Kentucky and Branches.....				
Northern, and Branches.....		100		
Southern, and Branches.....				
Bank of Louisville.....		93		
Kentucky Trust Co.....				
Farmers' Bank of Kentucky.....		105	108	
Commercial Bank of Kentucky.....				

## INDIANA.

State Bank and Branches.....				
TENNESSEE.				
State Bank and Branches.....				
Union.....				
Planters.....				

## LAND WARRANTS.

160 acre warrants, per acre.....	Buy'g	Sell'g		
80 acre warrants.....	\$1 10	1 12½		
40 acre warrants.....				



### Monetary and Commercial.

The money market remains in all its essential features, as at the date of our last weeks report. Capital is abundant for first class paper. Eastern exchange is in better demand, and, therefore, firmer at rates as before par @  $\frac{1}{2}$  premium.

General business is somewhat improved in activity.

General business is somewhat improved in activity. The transactions in Stocks, as will be seen in the re-

The transactions in stocks, as will be seen in the reports, are larger than last week, and some varieties have increased, others again are tending down. We may hereafter look for greater activity in the Stock Market, September being fairly commenced, and operators having to some extent returned from summer absences. As fall transportation also increases, the increased receipts of railroads must have a favorable action on those roads whose expenditures are not *always* made to increase faster than their receipts.

SALES AT THE NEW YORK STOCK BOARD, Sept. 10.

\$25,000	Indiana State 5's.....	84 1/2
4,000	Missouri 6's.....	93
1,000	Indiana Bank Bonds.....	84 1/2
10,000	Eric Bonds, '75.....	90 1/2
5,000	Panama Bonds 2d is.....	107 1/2
5,000	Ill. Cent. Railroad Bonds.....	85 1/2
1,000	C. & R. I. R. R. Bonds.....	96
7,000	N. Y. Cent. 7's.....	103 1/2
250	Shares Erie R. R.....	58 1/2
200	" Harlem.....	23 1/2
250	" Cleveland & Toledo.....	87 1/2
200	" Reading.....	96 1/2
50	" Hudson River R. R.....	41 1/2
100	" Panama.....	107 1/2
175	" Clev. & Pitts. R. R.....	70 1/2
160	" Gal & Chic. R. R.....	114 1/2

## MISSISSIPPI VALLEY RAILROAD.

At a convention of the people residing in North Missouri and Iowa, held at the city of Hannibal in June last, for the purpose of devising means to build a railroad up the Mississippi Valley, north, a Committee, composing the following gentlemen, were entrusted with the subject :—Thomas L. Anderson, of Marion; W. A. Harris, of Pike; J. H. Britton, of Lincoln.

This Committee has prepared an address on the subject of the proposed road, from which we make a few extracts.

"In our view of things, it is a measure, the importance and necessity of which can scarcely be exaggerated. Our object, taken in its most limited sense, is but the construction of a single link—but, certainly, a most important link—in that great trunk-railroad which must ultimately be constructed on the West side of the Mississippi river, from St. Anthony to New Orleans. The condition and circumstances of the present times, the increasing wants of commerce and travel, and the stern demands of a wise defensive policy, on our part, alike demonstrate its necessity, and require its prompt and immediate construction."

The Committee make the following remarks about commerce proper.

“But, in its mighty march of some three thousand miles—on its fertile banks, in all the intermediate space of its gentle meanderings, and in all the region watered by its twenty thousand miles of tributaries, there is produced almost every conceivable thing that ministers to the wants, or to the necessities of man. Every few degrees of latitude produces something that is not produced North or South of it. The products of the North differ from those of the South; the Southern from those of the North; the intermediate portion furnishes productions differing from both; and thus it is, that by the most beautiful and beneficent arrangement of nature, we have all the elements and commodities of a most unbounded commerce, within ourselves. And what is commerce, in its briefest definition, but the *exchange of commodities*. The

stock, the grain, the hemp, the tobacco, the provisions of the North of the valley, are exchanged for the sugar, the molasses, the cotton, and the rice of the South,—and thus, is that commerce established, equally advantageous, and equally important to all parties, and to all sections, which is now going on, and which must go on forever. The value of this commerce, three years ago—we mean that commerce which is borne upon the waters of the Mississippi, and finds an entrance or an exit at its mouth—was estimated at four hundred millions of dollars. But who can conceive, or rightly estimate, the enormous amount it will reach, when all the lands of this great valley are brought into proper cultivation, stimulated to their utmost productive capacity, by industry and science, and every part of the country made accessible at all periods of the year, by a general system of railroads?"

The length of our road we have estimated will be about 130 miles, from a point where it will deflect from the North Missouri Railroad, near the city of St. Charles, to a point on the Des Moines river, opposite to Keokuk. It would, as is well known to you, pass through one of the most fertile and beautiful bodies of our land in our State. The river tier of counties, between the Missouri and the Des Moines rivers, contained in 1850, 64,970 inhabitants; and assuming the usual rate of increase since that time, they would probably now contain about one hundred thousand. No portion of our great State is improving more steadily or rapidly, or is more successful in raising most of the great staples, that are contributing so largely to the increase of its wealth and prosperity. A steady tide of emigration is flowing into this part of the State, and daily augmenting its capital and resources. Lands are going up, by a constant and rapid increase in value, and a most healthy and permanent advance in the condition of the country is manifest on all hands. But what is all this to the effect that would be produced by the construction of this road, in adding to the permanent value of our already valuable and glorious domain."

### R.R. FROM FORT WAYNE TO GRAND RAPIDS.

While on a trip West the other day, we had an opportunity of observing the progress of this work. Undertaken at a time of general depression in railway enterprise, it has been pushed forward with commendable vigor, almost wholly through the exertions of the people along the line, who have taken nearly or quite all the stock and are now turning in hams, teams, and materials, with a liberal hand, to push it along. The grading of the line from Fort Wayne to Sturgis is in the hands of energetic contractors, who intend to complete their work within the year; and the portion of the line north of Sturgis will probably be put under contract without delay.

The line is an important, and we think must prove a profitable one; and the fact that it has been thus taken hold of and pushed forward without the aid of foreign capital, is not only creditable to the enterprise of those concerned in it, but forcibly demonstrates the principle that where channels of trade are needed, there may always be found the capital and enterprise necessary to open them without the fostering care of monopolists, or the aid of government grants, which are sometimes thought necessary.

**CINCINNATI STOCK SALES,**  
AT THE STOCK BOARD,  
**MERCHANTS' EXCHANGE,**  
**AND AT PRIVATE SALE.**  
~~~~~  
**BY HEWSON & HOLMES.**

For the week ending Sept. 12, 1855.

|         |                                            |                                                                    |             |
|---------|--------------------------------------------|--------------------------------------------------------------------|-------------|
| \$6,000 | Ohio & Miss. R. R. Co., 2d Mort.           | 7 per cent. Bonds.....                                             | 50 (& int.) |
| 2,000   | Cin. & Chicago R. R. Co., 8 per ct.        | Real Estate Bonds.....                                             | 38 "        |
| 3,000   | Cin. & Chicago R. R. Co., 8 per ct.        | Real Estate Bonds.....                                             | 40 "        |
| 500     | Cov'g. & Lex. R. R. Co., 6 per cent.       | Income Bonds.....                                                  | 50½ "       |
| 1,000   | Ind. & Cin. R. R. Co., 7 per cent.         | Div. Bonds.....                                                    | 68 "        |
| 5,000   | Cin., Wil. & Zanes. R. R. Co., 7 per cent. | 2d Mort. Bonds.....                                                | 65 "        |
| 2,000   | Cov. & Lex. R. R. Co., 7 per cent.         | 2d Mort. Bouds.....                                                | 66 "        |
| 1,000   | Cin'ti Western R. R. Co., 8 per ct.        | Real Estate Bonds. John McLean<br>and Griffin Taylor Trustees..... | 41¾ "       |
| 500     | Cin., New Castle & Mich. 10 per ct.        | Real Estate Bonds.....                                             | 41½ "       |
| 100     | Shares Junction (Incl. R. R. Stock)        | 10 "                                                               |             |
| 16      | " Little Miami.....                        | 97                                                                 |             |
| 20      | " Cin., Ham. & Dayton R. R.                | 79                                                                 |             |
| 4       | " " " " " "                                | 80                                                                 |             |
| 20      | " Cov'g. & Lexing. R. R. Co.               | 30 (& int.)                                                        |             |
| 47      | " Mad. River & Lake Erie....               | 35                                                                 |             |
| 120     | " Cin. & Chicago.....                      | 13 "                                                               |             |
| 250     | " " " " " "                                | 13½ "                                                              |             |
| 24      | " " " " " "                                | 14 "                                                               |             |
| 191     | " Ohio & Miss. Railroad Co.                | 8 "                                                                |             |
| 39      | " " " " " "                                | 9 "                                                                |             |
| 28      | " " " " " "                                | 9½ "                                                               |             |
| 40      | " Ind. & Bell. R. R.....                   | 50                                                                 |             |
| 15      | " Cin., Wil. & Zaues. R. R.                | 40                                                                 |             |
| 50      | " Ohio Mississippi.....                    | 8 "                                                                |             |
| 25      | " Farmers Bank Ky.....                     | 105                                                                |             |
| 10      | " " " " " "                                | 106                                                                |             |
| 20      | " Cin. & Chic. R. R.....                   | 13½ "                                                              |             |
| 46      | " Cov. & Lex. " " " "                      | 29 "                                                               |             |

## LONDON QUOTATIONS

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF  
E. F. SATTERTHWAITE, STOCK BROKER, LON.  
August 17, 1855.

|                                                               |                  |                  |
|---------------------------------------------------------------|------------------|------------------|
| Belvidere, Del., guar. 1st mort., conv. . . . .               | @                | 87               |
| Chicago & Rock Island, Mort., conv. 1853, . . .               | "                | 91               |
| Cin. Ham & Dayton, 2d mort., . . . . .                        | "                | 90               |
| Erie, 3d Mort. Fund, 1883, . . . . .                          | 88               | 90               |
| " Sinking Fund, . . . . .                                     | 81 $\frac{1}{2}$ | 82 $\frac{1}{2}$ |
| Grand Trunk (Canada) Debenture, . . . . .                     | 95 $\frac{1}{2}$ | 96 $\frac{1}{2}$ |
| Great Western " conv., . . . . .                              | 118              | 120              |
| " " mort. conv., . . . . .                                    | 108              | 109              |
| Illinois Central, 1st Mort., 7's, . . . . .                   | 78               | 79               |
| " " with option 70 per cent. shares till Jan. 1858, . . . . . | 84               | 85               |
| Little Miami 1st Mort. not conv. 5's, . . . . .               | "                | 81               |
| Maricetta and Cincinnati, 1st Mort., . . . . .                | "                | 90               |
| Michigan Central, conv. 8's, . . . . .                        | 97               | 99               |
| N. York Central. No Mort. Not conv., . . . .                  | 82               | 84               |
| " " conv., . . . . .                                          | 95               | 97               |
| Ohio and Mississippi, 1st Mort., . . . . .                    | "                | "                |
| Ohio and Pennsylvania, Income 1872, . . . .                   | 85               | 86               |
| Panama. No mort. conv. 1866, . . . . .                        | "                | 96               |
| Pennsylvania, 1st Mort., conv., . . . . .                     | 90 $\frac{1}{2}$ | 91 $\frac{1}{2}$ |
| " " Sterling 2d Mort., . . . . .                              | 93               | 95               |
| Steuensville and Ind. 2d Mort., . . . . .                     | "                | "                |



## Miscellaneous and Mechanical.

### SMOKE CONSUMING LOCOMOTIVE.

We subjoin the following statement of a trip on a new smoke consuming locomotive, by Mr. Herapeth.

For many years engineers have been trying to contrive some form of the fire-box for the perfect combustion of smoke, so as to be able to burn coal in railway locomotives instead of coke. The principle is well known, but the difficulty has been to carry it out in practice. In the year 1841 or 1844, I forget which, I was invited to try a small engine on the Midland Counties line, with, I believe, Mr. Kearsley, from Nottingham to Derby, which appeared to perform well, but for some reason the plan was not adopted in other engines, and fell therefore into disuse. Other attempts seem to have had no better success.

That it is possible to burn the smoke in locomotives as well as in stationary engines, no one has doubted. That it would be accompanied with great economy is evident, inasmuch as the gaseous matter which passes off uselessly in the form of smoke, in ordinary circumstances, is no insignificant fraction of the fuel consumed.

Mr. Charles Hood, in his "Treatise on Warming Buildings," 3rd edition, says that the loss of heat by the imperfect combustion of the gases of coal in ordinary cases is 38 per cent. of the coal used. If, therefore, the wasted gases could be utilised, the saving would tell heavily in reduction of the large expenses of railway Companies for fuel, besides saving all the expenses of converting coal into coke, about 7s. 4d. per ton.

Struck with the magnitude of the object, Mr. Joseph Beattie, the locomotive superintendent of the London and South Western Railway, has turned his attention to the subject, and has patented a plan which I was called on to witness last Saturday, in a trip from Waterloo station to Southampton and back.

The locomotive was the "Ironsides," an engine constructed under Mr. Beattie's patent, and weighing, as we understood, loaded with water and coal, about 24 tons. The tender had nothing but coal in it, and nothing else was used the whole way, down and up, either in the upper or lower fire-boxes. At intervals, and particularly when fresh coal was put on, I narrowly watched the top of the funnel and the color of the steam after it had left the funnel for some distance, and should certainly not have known anything but coke had been used, if my attention had not been particularly directed to it. Once or twice, when new coal was thrown on in considerable quantities, there was for a few seconds a very slight tinge of smoke in the issuing steam, but it was exceedingly slight, and such as would have escaped any one's notice not on the watch for it. At all other times I could perceive no trace of smoke, neither by sight or smell. In the tunnels, in which, if anywhere, one's nose would detect the presence of coal, I could find none. In fact, I found the smell of burning fuel much less offensive than I have on former occasions, when coke alone was used. Mr. Beattie, therefore, has no doubt, succeeded in effecting a complete combustion of all the elements of the coal.

He has besides added a condensing apparatus to the engine, which must be the parent of consid-

erable savings. By recondensing a portion of the steam as it escapes, after having done its duty in the cylinders, and turning it into the tank of the tender, he warms the water, and pumps it into the boiler of the locomotive at a temperature far above the ordinary temperature. By this means a portion of the heat expended in the generation of steam is returned again, over and over to the boiler.

I have long since seen the surplus steam while standing at the stations turned into the tender to heat its water, but never before have I known or seen the steam that had done its duty, recondensed and redelivered to the boiler through the tender, while the engine was in motion. So far, therefore, as I know, this is a new invention and must be economical.

The following summary of the day's work has been furnished to me by Mr. Beattie's son, Mr. J. H. Beattie, from our joint observations during the down and up trips:—

*Statement of the performance of the "Ironsides" engine on the 4th August, 1855.*

The trains worked were the 10.15 A. M. mail train to Southampton, and the 5.0 P. M. express train from Southampton to London:

| DOWN JOURNEY.                      |       |       |  |
|------------------------------------|-------|-------|--|
|                                    | H. M. | H. M. |  |
| Started from Waterloo station..... | 10 16 | 2 53  |  |
| Arrived at Southampton.....        | 1 9   |       |  |
| Deduct for nine stoppages.....     |       | 30    |  |

Net running time for the journey of 78½ miles... 2 23

| UP JOURNEY.                      |       |       |  |
|----------------------------------|-------|-------|--|
|                                  | H. M. | H. M. |  |
| Started from Southampton.....    | 5 2   | 2 11  |  |
| Arrived at Waterloo station..... | 7 11  |       |  |
| Deduct for four stoppages.....   |       | 18    |  |

Net running time for the journey of 78½ miles... 1 53

#### CONSUMPTION OF FUEL.

Coal consumed for getting up steam during the entire day, 32 cwt.; coal consumed by engine during stay at Southampton of three hours and forty-five minutes, 3 cwt. 5 lbs.; giving a net consumption of 28 cwt. 5 lbs. for running 137½ miles, which is equal to lbs. 20.27 per mile, or lbs. 22.75 if the fuel consumed whilst standing is included.

#### CONSUMPTION OF WATER.

|                                                                                                                                             | GALLONS. |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Water consumed during the down journey 34.45 inches, at the rate of 42½ gallons per inch, as per gauge glass at the side of the tender..... | 1474 00  |
| Water consumed during the up journey 25.75 inches, at the rate of 42½ gallons per inch, as per gauge glass at the side of tender.....       | 1099 75  |

Total consumption..... 2573 75  
Therefore, as 1 gallon of water equal 10 lbs., so 2573.75 lbs. of water divided by 3192 lbs. of coal is in the proportion of lbs. 8.06 of water by 1 lb. of coal.

| AVERAGE LOADS.                    | AVERAGE SPEEDS.     |
|-----------------------------------|---------------------|
| Down mail trip... 18 2 carriages. | 33 1 miles p. hour. |
| Up Express..... 9 5 "             | 41 8 " " "          |

Average up and down trips... 13 8 " 37 45 " " "

On inquiry, I am informed that the average mileage consumption of coke by the South Western ordinary engines is 23½ lbs. per mile with average trains of 11.5 carriages, against the 22.75 lbs. of coal, with 13.8 carriages in our trial of Saturday, which to Southampton was performed against a strong direct head wind as far as Basingstoke, and a stronger oblique head wind thence to Southampton. During the whole time the pressure in the boiler was from 115 to 120 lbs. to the inch, except when approaching the stations at which the train stopped, when it was reduced to about 100 lbs.; but I observed that previous to being ready to start again the steam had resumed its original pressure of from 115 to 120 lbs. This manner of cooling the engine appeared to have for its object a reduction of noise from the steam blowing off whilst standing at a station.

The engine, even with the greatest load, and going up the steepest gradient, was frequently blowing off steam. Her performance was exceedingly satisfactory. In the up journey it was

stated, but I did not observe the time myself, that for some 30 miles together we ran a mile a minute. In going down, at one time we were running with our heavy load some 50 miles an hour.

It was my intention to give some description of Mr. Beattie's invention, but I am prevented doing so, owing to the great pressure of matter.

I may here observe that I have before me the reports of Messrs Sir John Macneill, Charles Hutton Gregory, F. Fothergill, &c., civil engineers, on a similar trip with one of Mr. Beattie's engines, the "Britannia," with a mixture of coal and coke, all speaking highly in favor of the invention.

### WROUGHT IRON CANNON.

We find in the *Pennsylvanian* of Aug. 30 a description of a wrought iron gun, manufactured by Mr. Griffin. The dimensions of the gun, a three pounder, are given as follows:

Length of gun four feet—chambers three feet nine inches—diameter bore, two inches and forty one hundredths—thickness of metal at breach, one and three-quarter inches—weight of Gun, two hundred and fifty pounds.

This gun is said to be capable of sustaining a pressure of 60,000 lbs to the square inch. The most severe test to which it was put was a discharge of three and an eighth lbs. of powder and five balls.

These results are quite satisfactory. But there is a metal much superior to wrought iron in point of tenacity and resistance to wear. We mean steel.

Taking the usual tables of strength of materials as the basis of calculation and we have, per square inch:

| Section.          | lbs.    |
|-------------------|---------|
| Cast iron.....    | 36,600  |
| Wrought iron..... | 60,000  |
| Steel.....        | 120,000 |

It will thus be evident that the wrought iron gun of the same dimensions will be twice as strong as the cast iron one, and the steel gun twice as strong as the wrought iron one, or four times the strength of the ordinary cannon. There is also another advantage in steel as a material for guns, it is less liable to wear. And hence combines all the advantages of strength and durability. For flying artillery practice and field operations generally we should think that no considerations of cost could be of sufficient moment to warrant the choice of cast iron or even wrought iron in preference to steel guns.

### RAILROAD IRON.

1,000 TONS best quality Welch Rails, "Erie" Pattern, 59 lbs. per yard, to arrive, due here in fifteen days. Apply to  
VOSE, LIVINGSTON & CO.,  
New York, Aug. 16th, 1855. 9 South William st.

MIDDLETON, WALLACE & CO.,  
LITHOGRAPHERS & ENGRAVERS,  
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RAILROAD BONDS AND CERTIFICATES OF STOCK  
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Engraved in all styles and on short notice.



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**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
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**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**

**Railroad Depots and Station Houses,**

at current rates.

**L. A. OSTROM,**

Aug. 16. No. 6 West Third Street, Cincinnati.

**Railroad Iron,**

**1,500 TONS,** now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.,** 9 South William street. 8. 1m

New York, Aug. 16th, 1855.

**NOTICE TO CONTRACTORS.**

**PROPOSALS** will be received at the office of the Henderson and Nashville Railroad company in Madisonville, Kentucky, until the first Monday in October next, for the grubbing, clearing, grading and masonry of said road, or any part thereof. The work will be divided into convenient sections to suit bidders, of not less than half a mile. Proposals will be opened at the city of Henderson, on the said first Monday in October, at which time and place the Board of Directors will meet for that purpose.

**E. G. SEBREE, Prest.**

**CHAS. SEYMOUR, Chief Engineer.**

August, 18th, 1855.

5w



**T. N. RAFFINGTON,**  
**GENERAL ENGRAVER,**

North East Corner Fourth and Walnut Streets, over Ohio Savings Bank,

**CINCINNATI.**

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

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**BANK NOTE**

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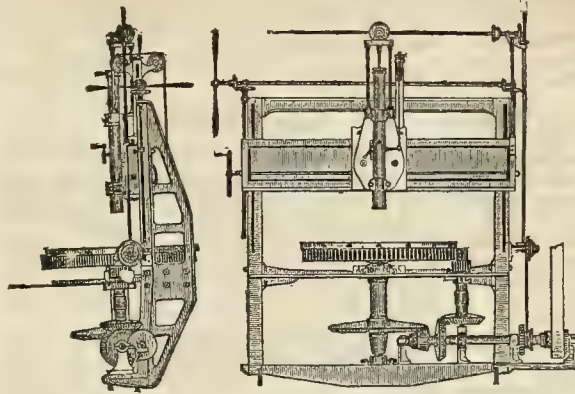
**RAIL ROAD, STATE, AND COUNTY BONDS,**  
**BILLS OF EXCHANGE, CHECKS,**  
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Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
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South-East corner of Main and Fourth Sts., Cin.

**NILES' WORKS.****FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

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**IRON AND BRASS CASTINGS, &C., &C.**

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**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**MATHEMATICAL INSTRUMENTS.**

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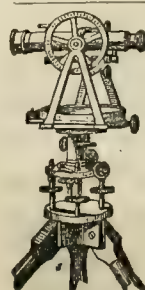
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Orders promptly attended to.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines, 25 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS, President.**

Also, for sale, two Twenty Horse Power Stationary Engines.  
Aug. 9 4t

**THE SCHENCK MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**

No. 163 GREENWICH STREET,  
**NEW-YORK,**

**KEEPS** constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

**A. L. ACKERMAN, PROPRIETOR.**

Aug. 9 1y

**D. D. MILLER,**

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**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of Railroad Officers and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,  
Railroad Record Office, 167 Walnut St. Cin.

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.  
Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action  
**SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.  
Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y

**IRON BOILER FLUES.**

PASCAL IRON WORKS.

**MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**  
From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

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**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Granger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly cash.

R. L. OWEN, Chief Engineer.  
Aug. 2, 1855. aug2 12w

**THE KENTUCKY MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,  
President of the Board.

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.**

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 22½ hours. Fare \$10.40.

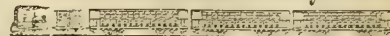
MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 29, 1855 S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M., for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.  
The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,  
St. Louis, Chicago, Galena & Rock Island,  
BY THE WAY OF THE  
CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 6.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.  
The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
feb. 8-ly D M MORROW, Superintendent



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

FREIGHT—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co.

S. S. POST,

Chief Engineer and Superintendent.

Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,

Ag't Cin. and St. Louis Omnibus Line,

Office No. 2 Burnet House.

## STEREOTYPE FOUNDRY,

AND AGENCY OF

**L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES,)  
is prepared to execute in the best manner all kinds of

**STEREOTYPING,**

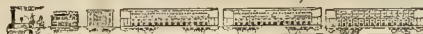
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS of every kind.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,

168 1-2 Vine Street, Cincinnati, O.

## 1855. New Arrangement, 1855 COMMENCING MONDAY, JULY 16.



## LITTLE MIAMI RAILROAD, VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAID WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads" by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the E. St; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¾ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30¾ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburg in.....    | 14 "      |
| To Philadelphia in..... | 30¾ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26¾ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

**FIVE DAILY TRAINS.**

FIRST TRAIN.—Cleveland, Pittsburg, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburg, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburg Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburg; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT City, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburg and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburg, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office,

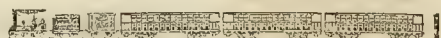
south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent

Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fairmouth, Culleville, Boyd's, Berry's, Robinson's, Gannett's, Cythiana, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

Covington to Lexington.....\$3 00

Covington to Paris.....2 40

Covington to Cythiana.....2 00

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,

Superintendent.  
The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices

oct. 17\* CLAYTON &amp; GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

VIA LAWRENCEBURG;

**IN connection with the Ohio and Mississippi Railroad.**

Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and La Fayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West, for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,

Cincinnati, June 12, 1855. Agent.

## W. G. ATKINSON,

Civil Engineer, Surveyor &amp; Draftsman.

CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for

Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared.

mar-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

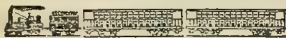
Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
J. B. OLMDSTED, TENNYS & PRICK,  
Louisville, Ky.

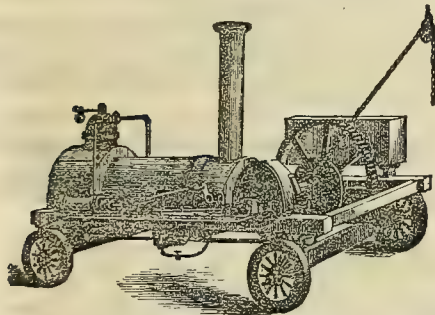
**Norris' Locomotive Works,**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Guages.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

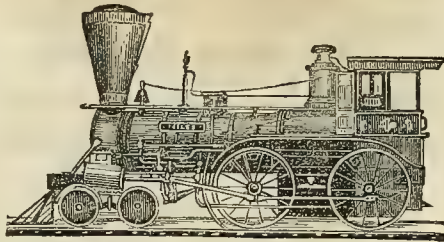
After a fair trial of it, in comparison with the Steam Guages in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Guages, submit the following Report:

"They have made use of different kinds of Steam Guages, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Guages to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DURAND, FULTON and TILTON.

Manufactured by J. M. BROWN,  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.**

**JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH & RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses, with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. R. Record of October 20th, 1853. mar1-tf

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makes) Car,

Conductor's, Signal, Switch, Stoker and other

Lanterns. Drawbridge and cross Road

signal Lights; Gum Packing and

Hose, assorted Car Trimmings,

Enameled head and seat

Linings, Plated and

White Metal Letters.

—ALSO—

Machinists' Tools,

particularly adapted to

Railroad Work, Mill Work,

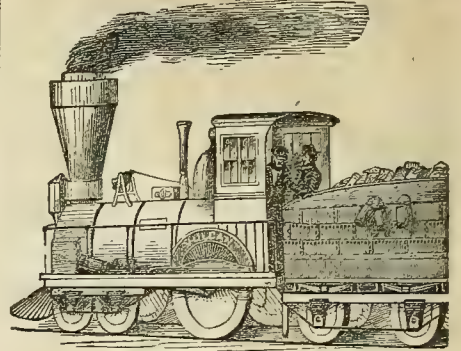
Shafting and Shop outfits, Punch-

ing and Shearing Machines, for Boiler

Work; Planers, Lathes, Drills, Portable

Forges, etc., etc. Oak-Tanned Belting, of super-

ior quality of all sizes. jy13.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 MOORE & RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,  
CLEVELAND, OHIO.

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. & R. Wason, Springfield, Massachusetts.

**Railroad Car Findings.**

**BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Castings Fit Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS  
Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

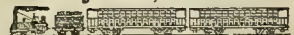
Late Davenport & Bridges, Car Manufacturers, Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.  
toc6

**CAR MANUFACTORY,**

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

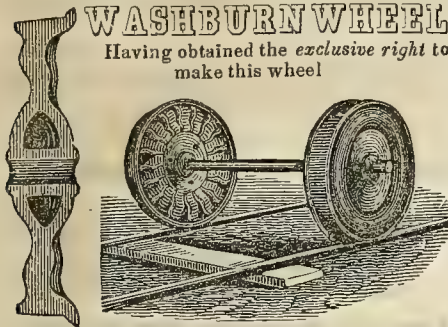
They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan.25-1



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

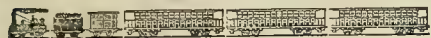


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSEL & CO.,

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16th

**JOSEPH DAVENPORT.**

### S. C. THOMSON & CO.,

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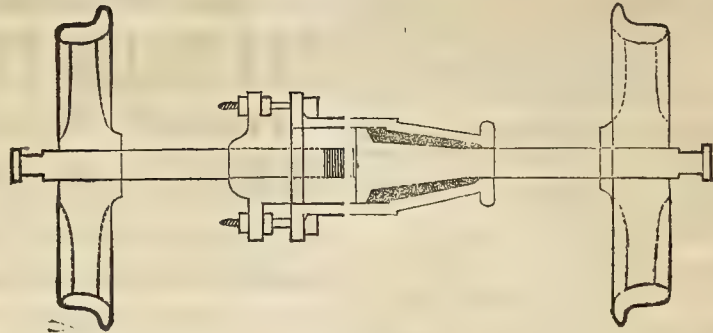
## PATENT PAD LOCKS,

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## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first fitted up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

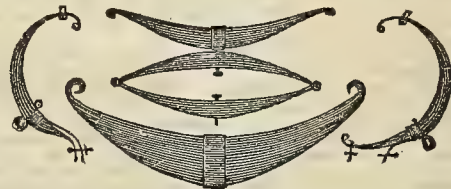
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

3y104

## MCDANIEL & HORNER, LOCOMOTIVE AND CAR MOTIVE SPRING



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

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### References.

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A. C. GRAY, Prest. New Castle Manuf. Co.

U. WELLS, R. R. Car Manuf. Petersburg, Va.

I. R. TRIMBLE, Supt. Philad. R.R. Co.

May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.

EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.

THOMAS DOUGHERTY, Master Mach. do.

THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.

## DURYEE & FORSYTH'S

PATENT

## PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

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### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,

Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "

Charles H. Fisher, Esq. "

Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.

Pinckney Huger, Esq., Pres't. N. E. R. R. Co. "

Oct. 13-th.



**Parry's Anti-Friction Box,**

PATENTED IN 1833.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

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**READ THE FOLLOWING CERTIFICATES.**

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, Jr.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent,  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane. Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. Parry, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents.

**TUBE EXPANDERS, FOUR-CUTTER AND  
CHAMBERING DRILLS,  
Countersinks, Cutting Bars and Pall-  
Lever Wrenches,**

WHALEBONE AND STEEL WIRE BRUSHES.

**Artesian Well Tubes  
Screwed Flush inside & outside.**

**FREE-JOINT TUBES  
For Core Bars, Awn-  
ings, Railings,  
Leaders, &c., &c.  
PATENTED**

**HOLLOW SLAB WATER TUYERES,  
For Smith's use, and  
WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

For warming air, boiling water and heating ovens.

**ANNULAR  
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More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

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CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**

of any calibre.

**PATENTED CAST-STEEL TIRES,  
For Railway Wheels. Railway Axles and Springs,  
SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

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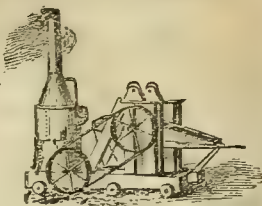
**THOMAS PROSSER & SON,**

28

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DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.

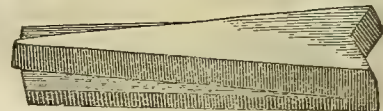


A silver medal, the highest prize, was awarded these Machines at the World's Fair. Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

**Important to Railroad Companies, etc.**



**Leavitt's Railroad Frog-Points,  
Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,  
Lathe Mandrels, Gauges**

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

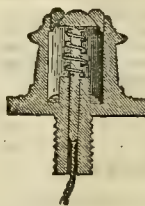
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

**RICHARDSON'S  
PATENT**



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# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING,.....SEPTEMBER 20, 1855.

OUR EUROPEAN AGENTS FOR THE RAILROAD RECORD are  
Messrs. ALGAR & STREET, of the London Provincial  
and Colonial Newspaper Advertisement Office.  
No. 11 Clement's Lane,  
London, England.

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**RAILROAD RECORD EXTRA.**—We complete in our Extra to-day, the Annual Statement of the Commerce of Cincinnati, begun in our last number. This statement was prepared for the Chamber of Commerce of this city, and exhibits in a condensed form the present commerce and growth in commercial resources of our city.

**RAILROAD EARNINGS.**—We sent out in our last issue a number of blanks for the use of Superintendents. We trust these will be all filled up, and returned to us at an early day. Do not forget to report regularly the earnings.

# Railroad Record

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Publishers, and Proprietors,

VOL. III.—No. 30.

## THE PEACH REVOLUTION; OR, THE POETRY OF RAILROADS.

When Queen Elizabeth (we think it was) first drew on a silk stocking, she revolutionized one branch of trade and introduced a new and important fabric into commerce. So when Captain Parry proved, in his Arctic voyage, the perfect security of fruit and meats put up in hermetically sealed cans, he introduced a new business into commerce. So, when railroads began to carry articles 400 miles a day, they made a peach-orchard accessible to ten-fold as many persons as it was before, and therefore far more valuable. Now these last two facts—that peaches (and so we may say of all fruit) can be *carried ten times as far* in a day, and can be *preserved* in hermetically sealed cans any length of time in their natural state; have increased the trade in peaches full ten-fold. Now, it may be interesting to trace out some of the facts and circumstances attending the peach trade.

We must premise that there is not only profit to the producers, but great comfort and convenience to large numbers of people, who could not possibly have had them without the railroads. This is proved in this way. A degree of latitude is about equal to a week's growth of fruit and vegetation. By means of railways, when these are fully completed, the peaches of Georgia and S. Carolina, may be brought into Cincinnati a month before they ripen here; and so the peaches of the Miami country are carried to the Lake towns, and sold there weeks before they can be produced there. Thus we see by this one example how railways are *equalizing* even the vegetation of the country. *Latitudes* are broken down before the tremendous power of steam, and, so far as regards the production of fruit and vegetables, almost an eternal summer reigns! If the epicure will pay for them, he can eat green peas and fresh peaches in the midst of summer, and amidst northern snows eat figs and pines from the tropics. This double art of *locomotion* and of *preserving* is multiplying the fruit orchards immensely, and will do so at a rapid rate, for many years to come. The multiplication seems to tend to a reduction of profits; but there is a counter-action to this, in the immensely increased demand. When people can have the fruit season doubled, and when they can preserve fruit in its natural state during winter, it is obvious that the consumption of fruit will be quadrupled. Hence it is not probable that even the immense increase of the fruit culture will materially reduce its profits. The peach being a favorite fruit, it is obvious that peach trees will be cultivated hereafter very much as apple orchards have been in times past. It is not many years since orchards were very numerous and covered a great deal of ground. The idea that cider is injurious has discouraged, and greatly reduced the apple culture.

But if peaches can be preserved as apples can, will not peaches take their place?

We will illustrate this subject by stating some facts within our own knowledge. Within five miles of Morrow, Warren County, are one hundred acres of peach orchards, and within about five miles of Milford, Clermont Co., as many more. In Hamilton County are great quantities of peach orchards. From these in all about 500 baskets per day are carried into Cincinnati market, besides the great quantity which comes in market-wagons. But a part of these orchards send their fruit almost exclusively to the North, and to the towns of the Lakes. At the Fort Ancient Station, car loads are regularly freighted for all the towns North—Columbus, Cleveland, Erie and Buffalo. At the same time, that this is the case, the peaches of Tennessee and Kentucky are brought to Cincinnati. Then the railways out of Cincinnati keep the peach market active for 400 miles, and create a continual demand for more fruit than can be supplied. But the chief cause of increased demand is the *art of canning*. At least half of all the housekeepers, in both town and country, have *canned* peaches this summer, and not only peaches, but other fruits and vegetables. We know of one house which has sold 200,000 cans. There are a great many varieties of cans in market, and immense quantities sold. We suppose that 600,000 cans of fruit and vegetables have been put up this season in Cincinnati and the vicinity. These will hold about 50,000 bushels, of which 40,000 bushels are peaches.

These cans will average at least ten cents each, or \$100 per 1,000, or in all \$60,000 for cans alone. The peaches cost \$60,000 also, and the sugar for syrup \$20,000. Thus we find the cost for *canned fruit* to be about \$140,000! It will require at least 250 acres of peach orchard to supply the demand for *canning fruit*! This is for the Miami country only, and if we examine the facts attentively, we shall see that the demand for fruit and the profit upon it, will continue for many years.

It is generally supposed, that the increase of peach orchards will render them unprofitable; but, unless the price falls much below even that of the present very abundant season, that will not be the case. Peaches have not sold below one dollar per bushel, and nearly all have sold for \$1 25. Suppose they sell for 75 cents only, let us see what a peach orchard will come to. 100 peach trees are planted on an acre, and of course 100 acres of ground will contain 10,000 trees. The original cost and planting these trees, will not be more than sixty cents each, which makes \$6,000. The cost of the land will be \$5,000. We have, then, this amount of capital:



|                            |         |
|----------------------------|---------|
| Land, 100 acres.....       | \$5,000 |
| Trees, 10,000.....         | 6,000   |
| Three years' tending.....  | 1,500   |
| Three years' interest..... | 3,000   |

Capital.....\$15,500

This orchard can be counted on for *four full crops*, from the first planting,—ten years.

In the bearing years, the trees will average two bushels each; or an average of a bushel each year. The selling account then will stand thus:

|                                                                                                       |          |
|-------------------------------------------------------------------------------------------------------|----------|
| Four crops, 80,000 bushels.....                                                                       | \$60,000 |
| Deduct twenty-five cents per bushel for picking and selling, and seven years interest on capital..... | 28,500   |

Nett profit.....\$32,500

The result then is, that this orchard, at 75 cents per bushel for the fruit, will pay interest on the money, and double the capital in ten years.

There are two popular mistakes about the peach tree. *First*, it is not true, that the peach bears only once in three years. With the least care, the peach bears two out of three years. *Secondly*, it is not true, that the peach is a short lived tree. The best peaches we have eaten this year, grew on a tree planted *thirty-five years ago*.

If, however, they had to be replanted every ten years, they are still the most productive crop raised, except *grapes*, which we hold, at present prices, to be the most profitable crop, especially if they be *not cultivated to death*, in a land where they are *native*.

Readers of the *Record* be not vexed, that we have spoken to you of peaches, instead of railways! It is a fruit plucked by the way-side.

#### NEW LOCOMOTIVE BOILER.

We learn from an eastern cotemporary that the Boston Locomotive Works are manufacturing a locomotive boiler on the plan adopted by Mr. Latta, of this city, for the boiler of the Steam Fire Engine. The principle employed consists in applying the direct action of the fire to coils of pipe containing water. This engine is intended to be a coal burner, and it is thought steam can be raised in fifteen minutes. The boiler of the Steam Fire Engine, on which this is based, works well, and it is quite probable that this engine will make steam rapidly. Whether, during the rapid consumption of steam at the high pressure necessary on a locomotive, these coils of pipe will remain filled with water, or what is often found an objection to the large pipes already used extending into the fire box of the locomotives, they will fill with steam and thus burn out, remains to be seen.

☞ We learn that JOHN H. DONE, Esquire, long known as the efficient Superintendent of the Baltimore & Ohio R. R., has been tendered the Superintendency of the Illinois Central R. R.

#### RAILROAD EXPERIENCE IN ENGLAND AND AMERICA.

It is a matter much to be regretted that the English and American nations do not possess a more intimate knowledge of the workings of the railroad system in each other's hands, subject to the peculiar genius of each people. We suspect that such an acquaintance, if properly cultivated, would be productive of benefits to both parties. Now, we do not mean to be classed in the number of those who advocate a foreign thing because it is foreign, and to whom it is enough that a thing is of foreign origin to attract for it a high consideration. The farthest from this imaginable. Of our railroad system as a whole, we are justly proud. We are proud of our railroads because they are American; we are proud of them because of their wonderful development of their own resources, and the improvements to which they have given birth in our country, and we are doubly proud of them for the manner in which they have stood the test of a financial crisis, and come out from the fiery trial in their integrity as a whole. We are justly proud of all this, and believe we have a right to be. But we nevertheless, believe that much profit is to be derived from a comparison of the experience of other nations under the peculiar circumstances in which they are placed.

English railways partake very much of the solid character of the nation. Everything about them tells that they are built for future generations. That it is not the design of their constructors to be compelled to do their work again, and in some respects we would do well to introduce this element more fully. But it is not our purpose to enter into a disquisition on the structure of these roads, our remarks were suggested by the fragments of the report of the Board of Trade for 1854, which have reached us, and which we have already given to our readers, and from which we wish to draw a few conclusions applicable to our own system.

FIRST NUMBER OF MILES.—The number of miles of railroad already constructed and in operation in the United Kingdom, at the close of 1854, was 8054. This gives *one mile of railway to every fifteen miles of surface*. The number of miles authorized and yet to be constructed, is 4752, making a total of 12,806, or a little more than *one mile of railway to every ten miles of surface*. It is estimated that about 22,000 miles of railway in all will be required to complete the railway system. This would give *one mile of railway to every five and a half miles of surface*. And it will be remembered, too, by reference to the reports referred to in a preceding number of the *Record*, that English railways have paid during the past year full 3.39 per cent. on the *whole* of the ordinary share capital; and when it is remembered that money there

is rarely worth five per cent., this return on the whole investment cannot be regarded otherwise than as satisfactory.

Now, what is the state of the case with regard to American railroads. Taking the states east of and contiguous to the Mississippi river, where our roads are located, and we have of completed railroad nearly 20,000 miles, or *one mile of railroad to sixty miles of surface nearly*. When the works at present in process of construction are all completed, we shall have about 35,000 miles of railroad, or *one mile of railroad to every thirty-five miles of surface only*. Let those who think we have too many roads for legitimate business, compare this result with the present supply and contemplated construction of railways in England, and we think the conclusion will be irresistible that our country is not overstocked with railroads. Intelligent men have estimated that in an ordinarily populous state *one mile of railroad to every ten miles of surface* will be ultimately required to supply the wants of trade. This estimate is not very far from being correct.

SECOND, COST OF CONSTRUCTION.—The cost of construction of English railways, has greatly exceeded that of American railroads. There are many reasons for this excess, land is higher in value, hence right of way costs more, highways must be carried over or under the railway, or protected by gates, to be kept closed at train times; less expense is spared in avoiding tunnels, etc., etc. There is one of these points that we have often urged, that is, highway crossings; highway crossings, where a train is liable to be impeded by every obstinate teamster who uses the road, should be protected in such a manner as to place it out of the power of a reckless or obstinate man to do an injury. In this respect we must commend English railways.

But to the *cost*. The total amount of capital paid up in 1854 was—

|                 |              |
|-----------------|--------------|
| Ordinary.....   | £166,030,806 |
| Preference..... | 49,377,952   |
| Loans.....      | 70,660,036   |
|                 | £286,068,794 |

The total amount authorized was £368,106,336.

This, we suppose, is thought to be sufficient to complete the 12,806 miles of authorized railway. This gives £28,700 as the cost of one mile of railway in England, or reduced to American currency in round numbers, \$140,000. American railroads, on an average, cost \$30,000 per mile, or a little more than one-fifth the cost of English railways. And yet with this immense cost, English railways have paid as rates of interest on the investment—

|                                | PER CENT. |
|--------------------------------|-----------|
| On the preference capital..... | 5.01      |
| “ loan “.....                  | 4.27      |
| “ ordinary “.....              | 3.39      |

THIRD, COST OF OPERATING.—The receipts per mile for 1854, according to the report,



were £2,576. The total cost of operating, including rates, taxes and government duty, was 45 per cent. of the receipts. In England, 45, Scotland 43, and Ireland 46 per cent. This comes very near the experience of our own country. The per centage of cost of operating varies from 43 to 48; the average has been generally assumed at 45 per cent. It will be remembered, however, that English roads run their express trains at a much higher rate of speed than we do. Hence we conclude that as the road beds of our railroads become more solid and the superstructure is improved, they will run their express trains at a higher rate of speed without adding materially to the per centage cost of operating.

#### EXPERIMENTAL TRAIN ON THE ERIE R. R.

We have read, with interest, a somewhat lengthy description of an experimental trip of a well burdened freight train on the New York & Erie Railroad, published in the Advocate of last week. Much has been said lately of the *experiments* on this road, and if we were to credit *all* that is said of railroad management hitherto, as compared with these results, we should believe that eastern railroad managers, in general, were a set of veritable blockheads. But we will let the Advocate speak for itself:

"We cannot take it for granted that the public are fully aware of the extent to which Superintendent McCallum is systemizing the working of the Erie road. With him, system, order and full responsibility in every department, are everything. There are great questions in the working of all roads, questions which many managers do not trouble themselves to examine, but which must be met and disposed of before the road can be worked with any proper effect and economy. To know the service and profit of *each* train, the actual and the possible economy of conducting repairs, the usual and the possible capacity of the power, the best systems of operative discipline and accountability, — are all great practical questions yet unsettled on more than nine-tenths of all the roads in the country.

"It has been Mr. McCallum's idea to establish standards for practical results, — standards of the service of engines, economy of fuel, repairs, oil and attendance, standards of the relative power of the same engines on different parts of the road, etc. It is a great point to establish such standards, by which it can be said what is and what is not a fair result. So soon as it can be *known* to what point every branch of the working of a road can reach, there is the result upon which the Superintendent can insist.

"It is known that the expense in detail of all the engines of the Erie Railroad have been recorded and published monthly since May, and by this a very important saving has been made. Now as the engines of this road are worked upon different divisions and upon different grades, it is necessary to determine the greatest load on each division in order to make a fair proportionate allowance for the cost per ton of freight carried per mile on each.

"To test, then the resistances of each division, — to make in fact a *practical* equation of the grades and curves of the road, — an exper-

imental train has been run through the whole length. The magnitude of the trial and the ample materials with which it is conducted as well as the gigantic and conclusive results which it has established, have made it a test of great interest and value. It has already proved necessary facts, — not only the absolute power of locomotives, but the relative resistances of different points of the road, and *which* points govern the capacity of the divisions in which they are located. It has already disproved calculations based on the experience of years in working the road — showing that the road has been before worked to a great extent by habit, — so to speak, — and not upon any standards of its absolute ultimate capacity. As an illustration we may mention the working of the Susquehanna and Delaware division. For years it has been honestly believed that about twenty-five per cent. more load could be taken over the Susquehanna than over the Delaware division. The Division Superintendents, the masters of the engine repairs and the engineers have believed so. But upon trial it is found that one hundred cars can be pulled east on the Delaware division with less effort than eighty cars for the whole length of the Susquehanna division. While the latter division is not found to be harder to work than has been before supposed, the Delaware division is found to be far easier than was ever supposed. Such is one of the results proved by this trial, and to those familiar with the past operation of the road, this result is an astonishing one."

Now, to us this language is incomprehensible. The comparative difficulties of working the divisions of a road, lie in their comparative grades and curves, rather than in the comparative success of a single trip. And when the road was first built, these grades and curves could have been known just as well, and for every purpose just as thoroughly as after the *thorough* test of once running an engine the whole length of the road. But the Advocate says, of this single trip: "It has already disproved calculations based on the experience of years in working the road, — showing that the road has been before worked to a great extent by habit, — so to speak, — and not upon any standards of its absolute ultimate capacity." Please be moderate friend Advocate. A single trip disprove the experience of years, and show that the road has been worked by habit, and not upon any standards of absolute capacity. We are loth to believe this of the Erie railroad or of any other road conducted by intelligent gentlemen, and were it so, it would be no great compliment to Mr. McCallum that he has so long allowed such a state of things to exist.

The truth is, that every train that goes over the road should be a trial trip, its results known and noted by the proper officers, and where a road is well officered, and has intelligent men in its various departments, it will be so. It will not be left for a single train to decide how many cars a locomotive of given weight and capacity can take at a given speed over different divisions, unless that speed be an unusual one. And this appears to have been in part the case during this

trial. The speed is stated to have varied from six miles to eighteen miles per hour. Now the average rate of speed for freight, as given in the report of the State Engineer of New York, is sixteen miles. Hence, results based on a speed of six miles can in no wise be applicable to a speed of sixteen. To make this trial trip of any real worth, it should be repeated every day for some time to come, and its results carefully annotated and compared. We venture to predict that no two such trials will exactly agree in all their minutiae. A slight difference in the pressure of steam, or height of water in the boiler, or speed in approaching a grade, or curve, and a thousand other minor points will modify results in an astonishing manner. No reliable result can be obtained from a single trip. If the Erie railroad would arrive at reliable conclusions, they must do what other roads have done, and what it is fair to suppose they have in part done hitherto, note the results of each trip of both passenger and freight engines, and compare the experience of years, under intelligent management. If they do this, a trial trip can do but one thing, and that is, prove the general result to be slightly modified by attendant circumstances.

#### NEW STEAM ENGINE—A NOVEL MACHINE.

There is now put up and almost ready for operation at the patent double washboard manufactory of T. E. Burke & Co., on Main street, a novel steam engine, the invention of our townsman C. Spencer, in connection with Mr. Burke. In construction it differs entirely from any other machine used for the application of steam power. It is exceedingly simple, consisting only of the cylinder, shaft, arms, and necessary pipes in connection with the boiler. The cylinder is seventeen inches in diameter, with a vacuum between the sides of less than four inches. In the cylinder play the arms attached to the shaft, and the motion is obtained by applying the steam to the arms. The steam used in the cylinder escapes back into the boiler. Five thousand revolutions per minute are obtained, and seven horse power is claimed. The whole machine, when completed, will not weigh over one hundred pounds, and its cost is very insignificant. — *Madison Banner*.

Will the editor of the Banner be so kind as to favor us with a more minute description of this engine. We infer from this description, that this is a rotary engine, but how the steam can escape back in the boiler, we cannot comprehend. We always supposed that the motion of a steam engine depended on the fact that the pressure on the side of the piston that is in communication with the boiler was greater than on the side which is in communication with the air or condenser. Now, if the steam escapes back into the boiler, we cannot conceive how motion is produced.

The public debt of the State of Tennessee, on May 17, was \$3,872,356.

Credit given to Railroads, \$38,74,000, making a total of \$7,746,856.



## Railroads.

### SOUTH-WESTERN RAILROAD, GA.

We have received the Eighth Report of this Company, made to the stockholders in Aug., 1855. From the report we learn that "the Road to Americus was opened on the first day of October last, and, recently, the accounts of that extension have been merged in the general accounts of the Company. The accounts now refer to one road, extending hence to Fort Valley; thence, on the one hand to Butler, (the point of junction with the Muscogee Road,) and, on the other, to Americus, a distance in all of ninety-two miles.

"The ninety-two miles of road, together with motive power, cars, depots, stations, and implements of all kinds, stand at a cost of one million six hundred and forty-one thousand eight hundred and six dollars and ninety-five cents. The other property of the Company consists of sixteen thousand dollars of Stock in the West point and Montgomery Railroad, which Stock was taken by this Company to aid in building the Opelika Branch. Thus, it appears that the Railroad of the Company, including all its appurtenances, cost \$17,845 72 per mile. The net income of the past year has exceeded eight per centum on the entire cost of the road and its equipment. The prospect, then, of the Company's continuing to pay annual dividends, at the rate of eight per centum, seems to be clear.

"Since the last annual report, Committees were appointed by the Muscogee Railroad Company, and this Company, respectively, to consider and report upon the expediency of uniting the two Companies, under the South-Western Railroad Charter, if Legislative authority to perform the act can be obtained. The committees met at Macon in May last, and made the following Report:

"The Committee recommend an amalgamation of the Muscogee and South-Western Railroads into the latter, on these terms:

"The Capital Stock to be composed of the following amounts, viz:

1st. "The existing shares of the South-Western Company.

2d. "New Stock to be issued to the holders of that Stock to the amount of seven per cent. interest on all installments for Stock from time of payment to the time of opening road, and also for such earnings and other means, not represented by stock, as have been used to finish the South-Western Road.

3d. "The existing Stock of the Muscogee Railroad, and added thereto, the Stock due to Mr. Gray on his completing the contract entered into with him.

"The New South-Western Railroad Company to assume the debts and take all assets of every description.

The Committee recommend the submission of the above recommendation to the Stockholders of the respective Companies, at meetings to be called in October or November, for their determination upon the subject.

"A call has, this day, been made for a meeting of the Stockholders of this Company, to convene at Macon on the 18th day of October next, to act upon the Report:

|                                                                                                                                              |              |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| he amount of seven per cent. interest on all installments for Stock, from time of payment to time of opening Road, is ascertained to be..... | \$119,683 84 |
| The amount of such earnings and other means, not represented by Stock as have been used to finish the South-Western Road, is.....            | 124,892 51   |
|                                                                                                                                              | \$244,576 35 |

"The Muscogee Railroad Company will furnish the necessary information in relation to the condition of that Company. This Board submits the whole subject to the Stockholders.

"If the Stockholders of the two Companies shall agree to the amalgamation, on the terms recommended by the joint Committee, and if it shall please the next Legislature to grant the necessary power, it is probable that the amount of the Bonds of this Company, convertible into Stock at the pleasure of the holders thereof, (\$228,500 00,) will be turned into Stock for the advantage of the Stock dividend, which, in those events, would be declared by this Company. Independently even of such arrangement, it would seem to be the truest interest of the holders of these convertible Bonds to take Stock.

"The subject of a further extension of the Road beyond Americus, was brought before the Board of Directors on the 28th day of October last. The action of the Board is to be found in the following extracts from their Minutes, which extract was printed and extensively circulated.

"The President laid before the Board several propositions for the further extension of the Road, viz:

"A proposition from the citizens of Eufala, Alabama, and Lumpkin, Georgia. Also a proposition from the citizens of Albany and of Dougherty counties. Also a proposition from the citizens of Calhoun and Early counties. Also a proposition from James Dean, Robert Collins, and Elam Alexander. All of which were presented to the Board, at their meeting on the 12th of October, at Americus.

"The Board took these several propositions into consideration, and after mature deliberation,

*Resolved*, That the Board cannot, consistently with their views of the true interest of the Company, accept any of the several propositions submitted, and, therefore, respectfully decline the same.

*Resolved*, That the President be requested to communicate to the several parties this decision of the Board, assigning in his communications the reasons which have governed

them in the action they have taken in the matter.

*And Whereas*, This Board is at this time, as it ever has been, willing to make a further extension of the road, whenever such an amount shall be subscribed to the Capital Stock of the Company, in cash, and payment duly secured, as will in their judgment justify them in making such further extension.

*Be it therefore Resolved*, That the Company will undertake the further extension of its road from Americus to some point in the vicinity of the junction of Dougherty, Calhoun, Lee and Randolph Counties—being a distance from Americus of from thirty-five to forty miles—on the following conditions, viz: a bona fide cash subscription to the stock of the Company, before the first of February next, of not less than two hundred and fifty thousand dollars, payable in three installments, and at the following periods, viz: twenty-five per cent. at the time of subscribing; twenty-five per cent. on or before the first of January, 1856, and fifty per cent. on or before the first of January, 1857; provided that if any subscriber shall make payment of all or any portion of the two last installments in advance of the time specified, he shall be allowed a deduction of the interest on such advance, from the time of payment to the time at which such installments would have been due. Provided also, that should the required amount of two hundred and fifty thousand dollars be made up by subscriptions as aforesaid, so as to authorize the work to be undertaken, such payments as may have been made, of the first installment, shall be promptly refunded to the subscribers. Subscribers of this two hundred and fifty thousand dollars to be admitted as general stockholders, and be entitled to dividends and all other privileges as stockholders, whenever the Road shall have been completed and in operation to the terminus herein before indicated.

"The cost of extending the Road to the point indicated in the preceding resolutions, was estimated to be not less than *six hundred thousand dollars*. The Company, it will be remarked, offered to undertake the work, if Stock should be subscribed only to the amount of \$250,000 00—not one-half of the cost—and it made the terms of payment very easy to the agricultural community. No subscription for this extension was presented to the Company, and the railroad rests at Americus. Whether the present prosperous appearance of things will induce any successful effort, on the part of the people, to secure an extension conformably to the Charter, remains to be seen. The Board feels that its action on this subject was rather more liberal than the circumstances of the Company, at the time, justified. There was a strong desire on its part to push the road further down than Americus. That desire still exists; but, viewing the large debt which has already been incurred, the Board must, in justice to the Stockholders, control that desire until the most liberal contributions, by those most deeply interested, shall be tendered."

From the Report of the Superintendent, it appears that the earnings of the road have been as follows:



|                              |              |
|------------------------------|--------------|
| Up Freight (Eastward).....   | \$93,149 34  |
| Down Freight (Westward)..... | 66,325 88    |
| Total Freight.....           | \$159,475 22 |
| Through Passengers.....      | 54,543 40    |
| Way Passengers.....          | 35,533 38    |
| Total from passengers.....   | 90,066 78    |
| United States Mail.....      | 7,054 05     |

Total Earnings.....\$256,596 05  
The current expenses of the year have been. 115,427 50

Leaving a balance of nett Earnings of.....\$141,168 55

"Total bales of cotton transported during the year, 127,250, against 105,083 the previous year.

"There have been carried over the road, since it went into operation, 216,516 passengers, only one of whom (and he not seriously) has been injured. He was endeavoring to get on the cars whilst they were in motion.

Number of through passengers for the year - - - - - 27,814

Number of way passengers for the year - - - - - 35,035

Making total of 62,849; being an average of 172 per day, against 171 per day for the previous year.

"The miles run by passenger trains within the year were 72,104. By Freight and other Trains, (exclusive of Gravel Train), 64,364; making total miles run 136,468. Wood used, 1700 cords; being an average of 80½ miles run to a cord of wood used."

The expenditures of the road have been as follows:

|                                                                    |             |
|--------------------------------------------------------------------|-------------|
| Repairs of road, including proportion of salaries.....             | \$20,628 97 |
| Fuel and Water.....                                                | 6,314 89    |
| Repairs of Buildings.....                                          | 50 71       |
| Maintenance of Motive Power, including proportion of salaries..... | 20,142 29   |
| Maintenance of cars, including proportion of salaries.....         | 6,030 26    |
| Transportation Expenses, including proportion of salaries.....     | 26,503 99   |
| Salaries (balances).....                                           | 3,775 01    |
| Incidentals.....                                                   | 947 46      |

Total current Expenses.....\$115,427 50

The permanent expenditures during the year, including tools and machinery in shops, cars, locomotives, depots, and construction account have been \$64,581 80.

#### LONDON AND PORT STANLEY RAILWAY, CANADA.

At the Annual Meeting of this Company, held at London, Canada, on Sept. 5, the following gentlemen were elected directors for the ensuing year:

Messrs. Lawrence Lawrason, Ed. Adams, Simeon Morrell, Murray Anderson, Samuel S. Pomroy, Elijah Leonard, Samuel Price, William Barker and Eltham Paul.

The following is the report of the Directors for the past year:

The directors of the London and Port Stanley Railway Company, in submitting their annual statement, in compliance with the act of incorporation, of the financial position of the company, deem it unnecessary to enter into any lengthened detail of its affairs, which have already been so fully set forth in their report, published in the month of April last, to which the stockholders are respectfully referred.

Notwithstanding the difficulties your board have had to contend with in the prosecution of the works, owing to the very depressed state

of the money market, both here and in England, rendering it impossible to raise the requisite funds upon the security of the company's bonds, they are, nevertheless, happy to inform the shareholders that the contractors have not had occasion at any time, wholly to suspend operations, but that they have been enabled to continue their labors throughout the year, although on a limited scale.

The following summary of the amount of work which has been done will, it is hoped, be satisfactory to the stockholders.

Masonry—Nine-tenths completed.

Excavation—150,000 yards, being about five-sixths completed.

The bridge timber has been all delivered, and partially framed and piled; also the iron for the bridges has been mostly delivered.

The whole of the ties have been supplied.

The fencing is one-half completed.

Iron for twenty miles of the road has been delivered, paid for, and partially distributed, and one mile and a half of the road have been ballasted.

Every effort having failed in disposing of the bonds of the company, either in England or America, the directors were compelled, at their meeting on the 25th July last, to resolve upon the suspension of the works after the lapse of that month. Upon application, however, to the city of London for aid, they are happy to state, that a public meeting of the citizens of London, convened by his worship the mayor, held in the early part of August, it was unanimously resolved to grant, by way of loan under the Municipal Loan Fund Act, the sum of £50,000 to be secured by the company's bonds; and a by-law was accordingly published for raising that sum, and adopted without a dissenting voice, by the ratepayers as required by the by-law on the 26th of last month.

The by-law for effecting this loan by the city of London, will be finally past by the city council this day, and will be submitted for the approval of the government without delay, and it is hoped that no difficulty will arise to prevent its final sanction, and that the amount will be immediately available; and which will enable our successors, who are to be chosen to-day, to prosecute the works with renewed energy; and, with the further aid confidently looked for from the County of Elgin, there is a fair prospect that the whole line will be completely equipped, and in full operation next summer.

SHEBOYGAN AND MISS. R. R.—We learn from the Sheboygan Times that the following gentlemen have been chosen Directors of the Sheboygan & Miss. R. R. Company:

J. F. Kirkland, A. P. Lyman, W. W. King, V. E. Young, B. Williams, D. Taylor, Henry Otten, and Thomas Fegan, of Sheboygan.

H. N. Smith, and R. H. Hotchkiss, of Plymouth.

John Bannister, and M. J. Thomas of Fond du Lac.

The Times further says:

The Board organized by the re-election of J. F. Kirkland, President; Chas. E. Morris, Secretary; and A. P. Lyman, Treasurer. The city commissioners appointed C. P. Hiller, Esq., as their agent to negotiate \$50,000 of the City Bonds, and the County Commissioners appointed B. Williams, Esq., their agent to negotiate \$50,000 of the County Bonds. We learn that over \$100,000 in individual subscriptions have been made to the

stock of the Road in this City within the last four weeks.

## Miscellaneous and Mechanical.

### THE IRON REGION OF LAKE SUPERIOR.

We give below an interesting letter from a correspondent of the Rochester American from the mineral region of Lake Superior. Recent developments go far to show that copper is not the only nor probably the most valuable mineral deposit of that region. The valuable iron mines here mentioned, were described in a recent report of the State Geologist.

Hitherto the copper mines of Lake Superior have commanded the chief attention, and have been more favorably and widely known than the iron deposits of the same region; but I am inclined to think the relative position of the two interests will soon be changed; and that at no distant day the iron interest at Marquette alone, will weigh down many times the whole copper business of the upper peninsula. Three material facts concur to render this supposition probable, viz: The inexhaustible supply of iron ore, its great purity, and the superior quality of the iron made from it. If these three great elements are in fact present, an iron interest must grow up here, and that too within a short period, of a magnitude far beyond anything in this country, and perhaps in the world.

It is difficult, by any description, to convey an adequate idea of the extent of this iron deposit. Actual observation is necessary to a full appreciation of its wonderful character. The Jackson Mountain, or more properly hill, is about fourteen miles from Marquette in the midst of a dense forest and was nearly inaccessible until a road was cut through and broken. This furnishes the most satisfactory exhibition of the rock ore, as the mountain has been opened and worked, exposing a naked ledge of blueblack rock,—of solid iron rock, nearly as rich in its native bed as the best pig iron. A little beyond this ledge, in the forest, are some two or three blue black boulders of great size, rising three or four feet above the surface of the ground, to which, it is said, an Indian conducted a Mr. Carr in 1845, to show him what he called a specimen of the "heavy stone," and upon a tree close by is cut the name of Carr as discoverer, and the date. He afterwards entered a mile square making this point the center of his location; and being a resident of Jackson, Michigan, he and others organized the Jackson Iron Company, and called this the Jackson Iron Mountain. Carr was not however, the original discoverer. Wm. Burt, Government Surveyor, had observed as early as 1841, at various points between the "Soo" and Marquette, among other places above the "pictured rock," and in 1844 he, with his son John Burt, then both engaged in the Government Survey of these lands, discovered rock ore at various places for seven miles upon the ridges now known as the Jackson, the Cleveland and the Lake Superior Iron Mountain, the latter of which is now the property of John Burt, Heman B., Geo. H. and, Sam'l P. Ely.



About two miles beyond the Jackson Iron Mountain, is the Cleveland, and about one mile west of that is the Lake Superior, at a distance of seventeen miles from Marquette. These are the principal, although not the only deposits of iron ore in the Peninsula. These hills are about the same in general appearance, rising about 100 to 120 feet, and are parallel ranges, rather than parts of a continuous chain. Along the foot of these hills, and upon their sides, are boulders of rock ore detached by some means from the main bed, while in other places the rock crops out, and in others, especially Lake Superior Mountain, the ledge is uncovered for several hundred feet in succession, literally a ledge of massive rock of unknown depth, for no shaft has been sunk to ascertain the depth of the deposit, in width from 500 to 1000 feet and extending with frequent outcrops on the Lake Superior Mountain along a distance of three miles.

The latter mountain is the one we examined most carefully, in visiting which a party of us spent two days encamped in the woods. It is entirely safe to say that there is more iron ore in sight, needing no excavation to find it, than can be removed in one generation, by the railroad now being constructed for the sole purpose of carrying it to the lake, which it will do at the rate of six hundred tons per day.

The ore is also far richer than any other found in the United States. A large portion of it will yield from 60 to 80 per cent. and it would be worth working if it yielded but 30. Its mineral richness is not the least singular feature in the case.

The quality remains to be considered. Different kinds of iron are needed for mechanical purposes; one requiring a hard, another a soft, one a malleable, another a tenacious iron; and a mixture of ore is very common to secure the particular properties sought. A tough tenacious iron is the best for heavy machinery of all kinds, and also for railroad iron. The iron made from this ore is said to be peculiarly tough and tenacious. It is said to be the only iron which is found to be tough enough to handle mass copper with, when made into hooks. But there is a very significant recognition of the tenacity of this iron to be found in the fact, that E. K. Collins has established a forge here for the express purpose of getting out iron for the machinery of his new ocean steamship Adriatic, now building, and he was, as I am told, induced to do this by a series of experiments made upon the iron, which resulted in establishing its superior quality.

The rock is easily blasted. At the Jackson mountain they have turned off 100 tons in a single blast. It is estimated that it can be done for 2s. per ton, which is owing to the brittle character of the rock, and its position above the surrounding surface. In its mineralogical character, I believe the ore is both specular and magnetic. The finest specimens in richness are of the granular species, but the bulk of the ore as we have seen the beds opened, presents a surface somewhat laminated, glistening and silvery.

There are three small forges here engaged in making charcoal iron; and a good deal of ore is shipped from time to time down the lake; but as yet nothing has been done in the way of using these vast deposits of iron on a scale commensurate with their importance. They are, however, preparing the way. Heman B. Ely is constructing a railroad to the Lake Superior Iron Mountain,

at the expense of some \$200,000, and will have some seven miles of it in operation the present season. To-day a freight engine of the first class, the "Sevastopol," was received from the dock and placed upon the first division of the road. The proprietors of the Jackson and Cleveland Mountain have constructed a frame railroad, which will commence operations this fall, and besides the Sharon Company, who are part owners of the Jackson mine, are constructing an immense dock and breakwater, on which they have, as I am told, already expended between \$40 and \$50,000.

### TURPENTINE.

HINTS FOR THOSE ABOUT TO ENGAGE IN ITS MANUFACTURE.

#### SITUATION.

Select your plantation as near a distillery as you can; but you may do a very profitable business 6 or 7 miles off, if the country is favorable for hauling. If the distillery is on a river, Turpentine may be hauled two or three miles and rafted down forty or fifty miles, cheaper than to haul to the Still over six or seven miles. Yet persons already settled on thin pine lands, can do better to make Turpentine and haul it ten or twelve miles, than at anything else they make for market.

#### TIMBER.

The best trees are young, thriving, on pretty good soil, of quick growth, having the most sap wood. If found on low, level, or moist lands, they will yield all the better. Dry seasons are unfavorable for a large crop of Turpentine, and, of course, trees on lands that suffer easily from drouth, are least profitable. Old Yellow Pines run badly, and are only worth boxing when standing amidst better timber.

The thicker the growth stands the better, as close forests are less injured by hard winds than those more open, while the hand has less ground to walk over in attending his task. Forests that will not afford a task of 12,000 boxes on 200 acres or less, are hardly worth working, unless they are very near the still, or water carriage to it.

#### BOXING.

As the future profit of the business depends chiefly on doing this part of the work well, let it be carefully attended to, observing the following instructions:

1. In our climate (Florida and Southwestern Georgia) this work must be done between the 1st of November and the 1st of March, or a little later if the spring is backward and cold, and the Turpentine does not begin to run.

2. The boxes must be cut *low down*—in small trees within six or eight inches of the ground and ten or twelve inches in large trees. This will be at the swell of the roots, where the sap wood is deepest and the trees least weakened by the cut, and because the drip is more certain to fall into the box when it is cut in the projecting wood. And for this last reason, when the tree is not upright, a box must never be cut on the side to which it leans.

3. The box should be from 8 to 15 inches long, measuring across the tree, according to its size. The lower edge or rim of the chop must be a level cut, very smooth, and have a down slope inwards of 2 or 3 inches below the outer edge. The depth from 3 to 4 inches,

capable of holding a quart or more, unless in a small tree. As a general rule, the cut should extend very little into the heart-wood.

4. The size of the tree determines the number of boxes it will bear and keep healthy. Trees under a foot thick should have but one box; those from 12 to 20 inches thick, two boxes and never more than three in any tree. Of course, where the trees are scattering, it may be better to cut more boxes, even if the trees do not last as long, than to lose too much time with your hands.

5. The task for prime experienced hands is from 450 to 500 boxes a week, or 75 to 80 a day. And some expert hands will gain a day and do their work well. Such hands should be encouraged by receiving pay for extra work. But most beginners will not cut at first more than 50 boxes a day, and there is nothing gained by tasking them too high, until they have got well used to the proper shape and size of boxes.

#### CORNERING.

As soon as you stop cutting boxes, the hands should be set to cutting corners to them. This is done by a straight cut four or five inches up the tree from each corner of a box, and is usually done with two blows of an axe, taking out a chip half or three quarters of an inch deep, which makes a channel to catch the Turpentine at the corners of the box, and serves as a guide for the chipping afterwards. A hand will corner 500 or 600 boxes a day. The Turpentine from the faces and corner of new boxes will fill them, without further work for your first.

#### DIPPING.

This part of the business generally begins about the first of April, a little earlier or later according to the season. But before proceeding to dip, or even to corner your boxes, each task, where there are no natural boundaries, should be marked off by blazing a line of trees. And every task should be further divided by rows of stakes, fifty yards apart, crossing it both ways, from side to side, which will cut it up into squares of about half an acre. Without this the overseer of several hands cannot possibly inspect their work with any accuracy; nor can the hands, however faithful, avoid skipping a great many boxes in *cornering, chipping and dipping*.

1st. Before you begin to dip, place your empty barrels, 35 or 40 to the task, at convenient distances, all ready to receive the Turpentine.

2d. Each hand will require two buckets, holding 4 or 5 gallons, so that while one is dipping into the barrel he can work with the other and lose no time. The implement for dipping is made of iron or steel, something like a trowel, with a wooden handle, the blade flat, 6 inches wide and 9 or 10 long, with a rounded point, thin at the edges, and a quarter of an inch thick in the centre, and joining the handle.

3d. Dipping must commence as soon as the boxes are pretty well filled, charging the hands to watch them, while going over their task to cut corners or to chip, as trees run very unequally, and many will overflow before the rest are full.

4th. The number of dippings in a season vary from 4 to 7 as the extremes. Below 5, during the first 2 years, is looked on as poor, and 6 as very good. An early or backward spring or fall—long drouths, during which the tree almost stops running—or heavy driving rains which fill the boxes with water and float out the Turpentine—all have their effect



on the number of dippings—which depends otherwise on the frequency and care with which chipping is done. As the plantation grows older, and the chipping extends higher up the trees, you get fewer dippings of *soft* Turpentine, and greater proportion of *hard* or *scrape*.

5th. It is not usually necessary to gather the scrape separately until the second winter, after the boxes stop running. It will then be nearly equal in bulk to two dippings. After that it must be gathered every winter, the bulk increasing the longer the trees are tended.

6th. For collecting the scrape, instead of buckets, it is better to use a box 15 or 16 inches square and 10 inches deep, supported on two short legs, so as to rest against the tree. The best implement for gathering scrape is a socket spade, so that the length of handle can be varied with the height of the work. The hard scrape will require to be trodden into the barrels.

7th. A hand should dip 1,800 to 2,000 boxes a day, or fill 5 or 6 barrels, so as to get over his task in 6 or 8 days. It will require more time to collect the hard Turpentine.

#### CHIPPING.

Next to careful boxing, the length of time that your trees will continue to yield, will depend upon the manner chipping is done.

1st. The instrument used is called a "hacker" or "shave" from its resemblance to a cooper's round shave, only that the cutting part should be shaped to a rounded point, an inch, or three quarters in diameter, and be supported on a strong spike, to be inserted in a handle of convenient length, according to the height of the chipping.

2d. Take care that the chip extends across the tree no wider than the box, and for new or awkward hands it will save much waste to have perpendicular lines drawn up the tree from each corner of the box.

3d. From each of these lines the chip should be cut in a down slope towards the centre of the box. Each fresh chip to be cut at the upper edge of the old one, about a quarter of an inch deep into the wood. A narrow chip or cut will bleed as freely as a wide one—half an inch is sufficient. And by this means your trees can be worked longer. If trees are skillfully chipped they will last 8 or 10 years.

4th. A good hand will chip over his task once a week. And, as it is important to have it done by the strongest and most expert hands, these should be kept at it regularly through the season—while women or inferior hands can dip very well. One hand can dip four tasks, while the best hands are kept busy chipping, and should go over the whole four or five times between the each dipping. On this plan the boxes first full can be attended to without interrupting the chipper.

#### HAULING.

One hand strong enough to load, with a pair of good mules and suitable wagon, will haul the Turpentine dipped by ten hands, an average distance of three miles—with spare time for hauling provisions, empty barrels, etc. And in the winter can be employed in hauling barrels, staves, ploughing in oats, or preparing ground for early peas and potatoes—so as to provide a large part of their own forage, for himself and team.

#### BARRELS.

1st. The barrel is made 32 inches long, in-

cluding chimes, and the head about 17 inches across, with a little bulge in the middle. The staves and heading of pine, to be three quarters or seven eighths of an inch thick, secured with six strong wooden hoops.

2d. A barrel of Turpentine must weigh 280 pounds, and any over or under weight is added or taken off, as the case may be, in calculating all sales. No allowance for weight of barrel.

3d. A cooper's task, when working by the day or month, is five barrels. His price is twenty to twenty-five cents a barrel for making when all materials are found him—and when he finds all, from thirty-one to thirty-seven cents apiece.

4th. Heading and staves of heart pine are worth \$5 a thousand. Sap staves one-fourth less, as they are only fit to hold the hard Turpentine or scrape. They should be got out and hacked up and dried two or three months before being worked up. Hoop poles, about 6 feet long, of hickory, white oak or water oak, are worth 20 to 25 cents per hundred, delivered.

5th. In a gang of hands getting Turpentine every fifth man may be a cooper, and will be employed the year through in providing his own materials and keeping the others supplied with barrels.

#### GUARDING AGAINST FIRE.

The evil consequences of getting a Turpentine plantation on fire are so great, as to justify the labor of hoeing around the boxes, so as to clear away all the grass and pine straw to a distance of 4 or 5 feet. This will employ a hand four or five weeks in the winter. The state ought to protect this important interest, by enacting severe penalties against those who set out fire where it can extend among trees boxed for Turpentine.

#### GENERAL REMARKS.

The Turpentine business is considered a very healthy employment for hands. It may be carried on with little capital, on lands too poor for cultivation, and is, therefore, well suited to persons of small means. If there is one hand, in the poorest family, able to cut boxes and chip them afterwards, the dipping can be done by women and half grown children. A poor family living near a still or river may make something, even if they hire their boxes to be cut, buy their barrels, and hire the hauling.

On the other hand, no business makes better returns for common labor, take one year with another, not even the culture of cotton and tobacco, especially when the amount of capital employed is taken into consideration. A prime experienced hand, in a plantation newly opened, has gathered \$600 or \$700 worth of Turpentine in a year, leaving a nett sum of \$400 or \$500, after all deductions for barrels, hauling, provisions, etc. Two hundred dollars per hand, clear of all expenses, including wages to an overseer, is a very moderate result for an average lot of hands.

The usual price for cutting good boxes is \$1 per hundred, and food for the hand.

Twelve thousand boxes are an average task in chipping and dipping. Extra prime hands have tended as high as fifteen or sixteen thousand, but ordinary hands will not do justice to more than ten thousand.

Good trees will yield about three barrels to the thousand boxes at each dipping, for the first three years one-sixth of this being *hard* or *scrape* the second year, and one-fifth the third year. The proportion of *scrape* increases as the chipping extends higher up the tree,

until it makes half the crop, while the dippings of *soft* Turpentine will be reduced to three or even two a year. It will, therefore, be necessary to add some new boxes to the task every year, after the fourth, to keep up the profitable business. In young, thrifty trees this may be done without increasing the bounds of a task, if the number of boxes was limited at first, as previously directed.

Virgin dip is the name given to all Turpentine gathered the first year from new boxes. Although the first three dippings make much the brightest and best rosin, and on this account it is worth fifty or seventy-five cents a barrel more than

Yellow dip, which is the name of all soft Turpentine taken from the boxes after the first year.

Hard or Scrape is the name for the Turpentine which hardens on the face of the chipping and never reaches the boxes. This makes a pretty fair rosin, but yields not more than a third of the quantity of spirits, and is worth about half price.

The evaporation of spirits from all soft Turpentine is very rapid in hot dry weather; and this makes it important to dip and deliver it at the still without unnecessary loss of time.

Virgin dip will yield about five and a half gallons of spirits to the barrel (of 280 pounds) for the first three dippings, and from five and a half to six gallons later in the season.

Yellow dip, if delivered early, will turn out six to six and a half gallons. The scrape rarely makes as much as three gallons, very often not more than two or two and a half to the barrel.

On an average, all kinds will make two barrels of rosin from three of raw Turpentine.

The distiller, therefore, will have one-third of his barrels surplus, which, with slight repairs, will serve as well as new ones for future dippings.

When Virgin dip is worth \$2 50 or \$2 75 a barrel, Yellow dip is worth about \$2, and the Scrape about \$1 25 a barrel.

To justify the distiller in paying the above prices, spirits of Turpentine should be worth 40 cents a gallon in the New Orleans market upon the supposition that the entire expense from the still does not exceed 8 cents a gallon on spirits, and 40 cents a barrel on rosin. When spirits are selling in New Orleans at 36 cents, the raw article is worth 20 cents a barrel less, at the still, at the same rate of expense in sending the manufactured article to market.

The distiller incurs great expense in the single article of spirit barrels. These must be iron bound, made in the best manner of seasoned white oak, and well coated within with glue, to prevent evaporation. They should contain from 40 to 45 gallons, and when ready for use cost little short of \$2 a piece. As there must be one spirit barrel provided to every seven of soft Turpentine, the demand for these barrels will of itself open an extensive new branch of business.—Let these, by all means, be made at home.

A word more at the close. It is said above that a Turpentine plantation will last 8 or 10 years. This is meant for Florida and South-western Georgia. In North Carolina, with careful working, it lasts 12 or 14 years. And then begins the business of making Tar from trees exactly prepared for it, by the previous culture. This is nearly as profitable as making Turpentine, and will furnish employment for several years longer.







## RATES OF EXCHANGE.

| Place.            | Time.      | Buy'g.           | Sell'g.   |
|-------------------|------------|------------------|-----------|
| On New York.....  | Sight..... | par.....         | 1/4 prem  |
| Boston.....       | Sight..... | do.....          | 1/4 prem. |
| Philadelphia..... | Sight..... | do.....          | 1/4 prem. |
| Baltimore.....    | Sight..... | do.....          | 1/4 prem. |
| New Orleans.....  | Sight..... | 1/2 dis. to par. |           |
| England.....      |            | 110              | 110 3/4   |

## SPECIE.

| GOLD.                       |         |   |         |
|-----------------------------|---------|---|---------|
| California clean, 9 oz..... | \$17 60 | @ | \$17 65 |
| Spanish Doubloons.....      | 16 75   | @ | 16 75   |
| Patriot Doubloons.....      | 15 75   | @ | 15 80   |
| Sovereigns*.....            | 4 86    | @ | 4 88    |
| Guineas.....                | 5 00    | @ | 5 00    |
| American, new.....          | 1 00    | @ | 1 00    |
| American, old.....          | 1 06    | @ | 1 06    |
| Portuguese.....             | 1 00    | @ | 1 00    |

## SILVER.

|                        |          |   |          |
|------------------------|----------|---|----------|
| American Dollars.....  | 1 03 1/2 | @ | 1 04     |
| American Halves.....   | 1 03 1/2 | @ | 1 04 1/2 |
| Spanish Dollars.....   | 1 14     | @ | 1 14     |
| Spanish Quarters.....  | 1 09     | @ | 1 01     |
| Mexican Dollars.....   | 1 05 1/2 | @ | 1 05 1/2 |
| Five Franc pieces..... | 97       | @ | 97 1/2   |

\* The standard English value attributed to the Sovereign is \$4.44, in London. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,

AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending Sept. 19, 1855.

|         |                                          |             |
|---------|------------------------------------------|-------------|
| \$5,000 | Cov. & Lex. R. R. Co., 7 per cent.       |             |
| 3,000   | Ohio & Miss. R. R. Co., 7 per cent.      | 65 (& int.) |
| 5,000   | Cin. & Chicago R. R. Co., 8 per ct.      | 52 1/2 "    |
| 3,000   | Hillsboro' & Cin. R. R. Co., 7 per cent. | 40 "        |
| 2,000   | Little Miami R. R. Co., 6 per cent.      | 60 "        |
| 1,000   | City of Maysville 6 per cent. Bonds      | 84 "        |
| 100     | Shares Colum. & Xenia R. R. Stock        | 91 1/2 "    |
| 30      | " " " " " "                              | 92 "        |
| 87      | " Indianapolis & Cin. R. R.              | 63 1/2 "    |
| 20      | " " " " " "                              | 64 "        |
| 29      | " Little Miami.....                      | 97 1/2 "    |
| 200     | " Cin. & Chicago.....                    | 13 (& int.) |
| 100     | " Junction.....                          | 10 "        |
| 18      | " Ind. Central.....                      | 50 "        |
| 20      | " Cov. & Lex. R. R.....                  | 28 "        |
| 40      | " Cin., Ham. & Dayton R. R.....          | 78 "        |
| 100     | " Mad. River & Lake Erie.....            | 37 "        |
| 150     | " Ohio & Miss. Railroad Co.....          | 7 1/2 "     |
| 795     | " " " " " "                              | 8 "         |
| 434     | " " " " " "                              | 9 1/2 "     |
| 48      | " Cov. & Lex.....                        | 27 "        |
| 100     | " Marietta & Cin.....                    | 22 "        |
| 4       | " Little Miami.....                      | 97 "        |
| 50      | " N. Albany & Salem.....                 | 15 "        |
| 162     | " Cin. Ins. Co.....                      | 83 "        |
| 160     | Acre Land Warrants for.....              | \$170       |

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAITE, STOCK BROKER, LON.

August 17, 1855.

|                                                         |        |        |
|---------------------------------------------------------|--------|--------|
| Belvidere, Del., guar. 1st mort., conv.....             | @      | 87     |
| Chicago & Rock Island, Mort., conv. 1858.....           | "      | 91     |
| Cin. Ham & Dayton, 2d Mort., conv.....                  | "      | 80     |
| Erie, 3d Mortgage, 1853.....                            | 88     | 90     |
| " Sinking Fund.....                                     | 81 1/2 | 82 1/2 |
| Galena & Chicago.....                                   | "      | 87     |
| Grand Trunk (Canada) Debenture.....                     | 95 1/2 | 96 1/2 |
| Great Western " conv.....                               | 118    | 120    |
| " " non-conv.....                                       | 108    | 109    |
| Illinois Central, 1st Mort., 7s.....                    | 78     | 80     |
| " " with option 70 per cent. shares till Jan. 1858..... | 84     | 85     |
| Little Miami 1st Mort. not conv. 6s.....                | "      | "      |
| Marietta and Cincinnati, 1st Mort.....                  | "      | 81     |
| Michigan Central, conv., 8s.....                        | 97     | 99     |
| N. York Central. No Mort. Not conv.....                 | 82     | 84     |
| " " conv.....                                           | 95     | 97     |
| Ohio and Mississippi, 1st Mort.....                     | "      | "      |
| Ohio and Pennsylvania, Income 1852.....                 | 85     | 87     |
| Panama. No mort. conv. 1866.....                        | "      | 96     |
| Pennsylvania, 1st Mort., conv.....                      | 90 1/2 | 91 1/2 |
| " " Sterling, 2d Mort.....                              | 93     | 95     |
| Steubenville and Ind., 2d Mort.....                     | "      | "      |

The quotations given are sterling quotations. The American value is to be obtained by adding an exchange generally about 10 per cent.

## Monetary and Commercial.

This past week has exhibited some of the returning activity of the fall season. Money is in somewhat better demand, although the supply continues ample. First class paper is freely discounted by the regular houses at 6 to 12 per cent. Second class paper goes outside at 15 to 24, according to grades and necessities.

The exchange market has exhibited some feverishness during the week. For several weeks it has remained steady at par buying to 1/4 selling. It advanced during the early part of the week to 1/4 @ 1/2, and again to 1/2 @ 3/4, but declined again to 1/4 @ 1/2 premium. The supply is abundant, the country banks are all well supplied. New Orleans exchange is exceedingly dull at 1/2 dis. @ par.

In the Stock Market there has been somewhat more activity, and with renewed inquiries, the prices of some of the low priced stocks have advanced. Ohio & Mississippi ranged during the week from 7 1/2 to 9 1/2, closing at the latter figure. Covington & Lexington declined to 28. Mad River & Lake Erie advanced to 37. Prices on the whole are more settled than they were two months ago.

## SALES AT THE NEW YORK STOCK BOARD, Sept. 17.

|        |                                  |         |
|--------|----------------------------------|---------|
| 10,000 | Missouri 6's.....                | 93 1/2  |
| 1,000  | Tennessee 6's '90.....           | 96 1/4  |
| 5,000  | Virginia 6's.....                | 98 3/4  |
| 3,000  | Louisiana 6's.....               | 93 1/2  |
| 5,000  | Erie Conv't Bonds, '62.....      | 85      |
| 10,000 | " " Bonds, '83.....              | 96 1/2  |
| 11,500 | " " " " " " '75.....             | 90 1/4  |
| 1,000  | Ill. Cent. Railroad Bonds.....   | 85 1/2  |
| 1,000  | C. & R. I. R. Bonds.....         | 99      |
| 1,000  | Terre Haute & Alton 2d Mort..... | 80 1/2  |
| 500    | N. Y. Cent. 7's.....             | 104     |
| 400    | Shares Cleveland & Toledo.....   | 87 1/4  |
| 100    | " Chic. & R. I.....              | 103     |
| 100    | " Erie.....                      | 55 1/2  |
| 200    | " Reading.....                   | 96 1/2  |
| 50     | " Hudson River R. R.....         | 41 1/4  |
| 10     | " Mich. Cent.....                | 100     |
| 14     | " Mich. So. & Nor. Indiana.....  | 102     |
| 16     | " " " " Const.....               | 96 1/2  |
| 150    | " Panama.....                    | 107 1/2 |
| 150    | " Ill. Cent.....                 | 95 1/2  |
| 5      | " Gal & Chic. R. R.....          | 117 1/2 |
| 5      | " Wis. & Lake Shore.....         | 86      |

## Earnings.

CENTRAL OHIO RAILROAD.—The following are the Earnings of the Central Ohio Railroad, for the month of August, 1855:

|                 |             |
|-----------------|-------------|
| Passengers..... | \$18,934 72 |
| Freight.....    | 10,183 06   |
| Mails.....      | 2,432 43    |
| Express.....    | 312 73      |
|                 | \$31,862 94 |

Falls in the Cambridge Tunnel has interfered with our business somewhat.

## COMBINATION OF IRON AND CARBON.

Mr. S. B. Rogers, of Nant-y-Glo, Wales, comments with considerable force upon the discrepancies between the reported analysis of continental chemists with respect to the portion of carbon in pig or cast iron. In proof of this statement he produces the following list of ten analyses of cast iron:

|                        | Iron. | Carbon. | Aggre. |
|------------------------|-------|---------|--------|
| White Cast-Iron.....   | —     | —       | —      |
| Grey ".....            | —     | —       | —      |
| Grey ".....            | —     | —       | —      |
| Quality not given..... | 95.60 | 3.05    | 98.65  |
| Grey.....              | 96.00 | 2.00    | 98.00  |
| White.....             | 98.00 | 1.20    | 99.20  |
| Mottled.....           | 98.40 | 0.80    | 99.20  |
| ".....                 | 98.80 | 0.50    | 99.30  |
| Grey.....              | 99.20 | 0.40    | 99.60  |
| Mottled.....           | 99.50 | 0.20    | 99.60  |

## Or in the ratio of

| Iron.      | Carbon.   | p. ct.   | Analyst.  |
|------------|-----------|----------|-----------|
| 94.78..... | 5.22..... | 100..... | Karsten.  |
| 95.40..... | 4.60..... | 100..... | "         |
| 96.85..... | 3.15..... | 100..... | "         |
| 96.90..... | 2.10..... | 100..... | Svanberg. |
| 97.96..... | 2.04..... | 100..... | Bergman.  |
| 99.76..... | 1.24..... | 100..... | "         |
| 99.19..... | 0.81..... | 100..... | Gazeran.  |
| 99.45..... | 0.55..... | 100..... | Berthier. |
| 99.59..... | 0.41..... | 100..... | Gazeran.  |
| 99.70..... | 0.21..... | 100..... | "         |

Mr. Rogers, desirous of clearing up, if possible, the atomic combinations of Carbon and Iron from the doubts and difficulties in which they are at present involved, observes as follows:

"Here we have a list of combinations of iron and carbon, by parties whose names stand as high authority in the chemical and metallurgical community, ranging from 0.21 to 5.22 per cent. of carbon, and, therefore, from 94.78 to 99.79 of iron; the sample No. 10 was represented as English pig iron. Now, from the above representations, we are almost unavoidably led to the inference that the unions of carbon and iron are not subject to the law of "atomic combinations"—a conclusion that would open the way for a retrograding march from light to comparative darkness, with regard to our present metallurgical knowledge. To such a conclusion, however, I am prepared to demur; and my reasons for doing so are, that definite compounds of carbon and iron may be much more satisfactorily accounted for than they are at present, by instituting a new scale of the combining proportions of carbon with metals generally—that is, a carbon scale, taking one by weight of that element as the prime, or starting point, instead of six, and leaving the atomic number of the metals to remain as they now stands on Dr. Wollaston's "hydrogen scale." By arrangements of this kind, we should be able to work out results much nearer to the actual state of things in our analysis of cast iron, and yet keep within the range of definite and well-defined proportions with respect to its element—for instance (say).

1 lb. of carbon, combined with 28 lbs. of iron, to form 29 lbs. proto carburet, would be in the ratio of 96.55 iron and 3.45 carbon per cent.

3 lbs. of carbon, combined with 56 lbs. of iron, to form 59 lbs. sesqui-carburet of iron, would be in the ratio of 94.81 iron and 5.09 carbon per cent.

2 lbs. of carbon, combined with 28 lbs. of iron, to form 30 lbs. per carburet of iron, would be in the ratio of 93.33 iron 6.66 carbon per cent.

That difficulties may arise from working upon these suggestions, I have not the slightest doubt; but if we are to be deterred from broaching new and important ideas or things in any branch of knowledge, merely because a few difficulties may, on a first view of the matter, appear to stand in the way of their introduction: then farewell to every hope of improvement from either our mental or physical exertions.

The suggested combinations may, in the new "carbon scale," be run up from one to six lbs. of carbon to 28 of iron, or from 28 to 56.84 and up to 196 lbs. of iron to one of carbon; this last combination—that is, 99.5 iron and 0.5 carbon—would appear to very accurately represent the proportions of carbon in blistered steel—namely, 1-200th part, as made at the Monkland Steel Works. The late Mr. D. Mushet stated the proportions of carbon in pig iron as follows:

|                      |             |              |             |
|----------------------|-------------|--------------|-------------|
| White cast-iron..... | 1.25th..... | 96 iron....  | 4 carbon.   |
| Mottled ".....       | 1-20th..... | 95 ".....    | 5 ".....    |
| Dark gray.....       | 1-15th..... | 93.33 "..... | 6.65 "..... |

Now these proportions of carbon in the white and mottled iron are very nearly the same as the proto and sesqui-carburets above mentioned, and the dark gray compound corresponds exactly with the hypothetical percarburet.



## NEW STEAMBOATS AND BARGES,

Built here since Sept. 1st, 1854.

| NAMES.                    | TONNAGE. |
|---------------------------|----------|
| Steamer Bostona.....      | 377      |
| " Ariel.....              | 170      |
| " Daniel Boone.....       | 417      |
| " Montgomery.....         | 275      |
| " Switzerland.....        | 456      |
| " Natchez.....            | 838      |
| " Nebraska.....           | 756      |
| " Seventy Six.....        | 254      |
| " Nashobah.....           | 137      |
| " Jo Gales.....           | 208      |
| " Davenport.....          | 138      |
| " Lancaster No. 3.....    | 280      |
| " Princess.....           | 854      |
| " Home.....               | 183      |
| " Queen of the West.....  | 472      |
| " Ohio Belle.....         | 472      |
| " Moses McLellan.....     | 406      |
| " A. B. Chambers.....     | 415      |
| " Hickman.....            | 255      |
| Barge Little Memphis..... | 130      |
| " Frank Dean.....         | 130      |
| " Wide Awake.....         | 236      |
| " Molly Stark.....        | 143      |
| " Arch Gordon.....        | 242      |
| " Hamilton.....           | 138      |
| " Joe.....                | 138      |
| " Greyhound.....          | 178      |

Total..... 8685

## COMPARATIVE AGGREGATES.

|               | Number. | Tonnage. |
|---------------|---------|----------|
| 1850-'51..... | 233     | 49,274   |
| 1851-'52..... | 263     | 60,542   |
| 1852-'53..... | 298     | 76,647   |
| 1853-'54..... | 314     | 80,266   |
| 1854-'55..... | 318     | 8,874    |

The above shows but a very small increase in the number and tonnage of steamboats and barges which have arrived at this port during the year; but when it is considered that the Ohio River was un-navigable for any but the smallest class of steamers, from the 1st of September until the 31st of December, 1854, and that it was not until the 1st of February, 1855, that it was at what may be termed a good navigable stage, the surprise is that there was not a large falling off.

The following table shows the whole number with the tonnage, of Steamboats and Barges, built at this port, for each year during the last ten years,

|                       |      |        |
|-----------------------|------|--------|
| 1854-'55, No. 27..... | tons | 8,698  |
| 1853-'54, No. 31..... | "    | 9,858  |
| 1852-'53, No. 29..... | "    | 10,252 |
| 1851-'52, No. 33..... | "    | 8,896  |
| 1850-'51, No. 31..... | "    | 8,206  |
| 1849-'50, No. 16..... | "    | 4,560  |
| 1848-'49, No. 23..... | "    | 7,281  |
| 1847-'48, No. 29..... | "    | 10,233 |
| 1846-'47, No. 32..... | "    | 8,268  |
| 1845-'46, No. 25..... | "    | 7,657  |

The above exhibit shows only a very slight falling off in the number and tonnage of Steamboats and Barges which have been built during the year, notwithstanding the great depression in the Steamboat business, which has prevailed, and which can be understood by all river men; the Ohio river having not been at a navigable stage for even second class Steamers, from June 1854 until February 1855, a period of eight months, during which time Steamboats of the first and second class were laying idle. But a reaction has set in, and there are now in course of construction at our ship yards ten Steamers, which are not included in the above list, the aggregate tonnage of which is 4,750 tons; and three Stern wheel boats have just left the ship-yards, and are now being finished. Their average tonnage is 130 tons each.

## RAILROAD MEETING.

The citizens of Tallahatchie county, Miss., met at Charleston on Monday, the 13th of August, to take into consideration the propriety of running the Tennessee and Mississippi Railroad through our county, the valley route, when the following proceedings were had.

On motion of Col. James M. Harper, Hon. James S. Baily was called to the Chair, and John H. McAfee, appointed Secretary.

The Chairman, in a brief and appropriate manner, explained the object of the meeting, when, on motion, Col. J. M. Duncan, Maj. E.

E. Armstrong, P. H. Thornton, R. E. Lee, and Col. T. J. N. Bridgers, were appointed a committee to raise subscriptions for stock, and report the same to our next meeting.

On motion, it was—

*Resolved*, That we give a Railroad Barbecue in Charleston, on Saturday, the 8th of September next, and that we respectfully invite the citizens of Panola, Yallobusha, Carroll and Holmes Counties, that feel an interest in this enterprise, to meet and participate with us on that occasion.

*Resolved*, That a copy of these proceedings be sent to Panola, and Carroll newspapers with a request that they publish the same.

On motion of Maj. E. E. Armstrong, the meeting adjourned to meet in Charleston on Saturday, the 8th of September.

JAMES S. BAILY, Chairman.

JOHN H. McAFEE, Secretary.

## CLEVELAND, MEDINA &amp; TUSCARAWAS E. R.

We learn that the grading, masonry and superstructure of this road are nearly completed, from its Northern terminus at Grafton to Dalton, Wayne county, a distance of forty miles. At or near the latter point, the C. M. & T. intersects the Ohio & Penn. Railroad; and when the iron is supplied, the connection between the C. & T., the C. C. & C. and the O. & P. Railroads will be complete. We learn that the C. M. & T. Road is permanently located as far south as Bolivar, in Tuscarawas Co., and that surveys have been made from thence to Bridgeport, opposite Wheeling, where it is to connect with the Baltimore & Ohio R. R., thus forming an uninterrupted and important Railroad line from thence to the Lake, at Cleveland, and to the North West via the Cleveland and Toledo Road, passing through a section of Ohio rich in mineral and agricultural resources, upon which it can depend for way business.

It is said a project is on foot and meeting with favor, to extend this Road from Grafton to Elyria—a distance of only six or seven miles—so as to connect it with the Northern Division of the C. & T. R. R. — If this should be done, the Road when completed would cause that place to become an important railroad point. The construction of the C. M. & T. line must tend to enhance the business of the Cleveland & Toledo Co. materially, especially if the Elyria connection be made; as the latter Road would be used in penetrating the North West. Incidentally, it would tend to the advantage of this city, by affording another outlet to the Atlantic cities.

We hope the projected Road may have an early completion, though there still remains much to do before the enterprise is consummated, and the difficulties of the undertaking are greater than they would have been two or three years since. The entire distance from Elyria to Bridgeport, on the Ohio River, is about 130 miles. We are indebted to the President of the Co., L. D. TALLMAN, Esq., who visited Sandusky on its business, yesterday, for the above facts. Mr. T. was accompanied by S. N. SARGEANT, who is also interested in the enterprise. Both these gentlemen are residents of Medina, a place which seems to have caught the spirit of the age, and desires to be connected by rail with the rest of mankind.—*Sandusky Register*.

We do not exactly see the advantage to be gained either by Toledo or Sandusky from this route. They have already other routes equally as short to Pittsburgh and Wheeling as this route would afford. A straight line road through Grafton, Akron and Alliance would be far better for them, as far as through trade to Pittsburg is concerned. We do not believe, however, that the through business on that line would pay. These roads must look mainly to local business for support.

## BALTIMORE AND OHIO RAILROAD.

At the regular monthly meeting of the Board of Directors of the Baltimore and Ohio Railroad, held yesterday, the revenue of the road for the month of August was reported as follows:

|                     | Main stem.   | Wash Br.    | Totals.      |
|---------------------|--------------|-------------|--------------|
| For passengers..... | \$58,120.26  | \$27,168.93 | \$85,389.19  |
| For Freight.....    | 257,529.49   | 9,005.52    | 266,535.01   |
|                     | \$315,649.75 | \$36,174.45 | \$351,824.20 |

Compared with the month of August, 1854, when the receipts were \$327,135.61, this shows an increase of \$24,688.59. Of this increase \$9,914.24 was for passenger travel over the Main stem, showing that with the completion of the connections of our road westward it is steadily gaining popularity as the preferred route of travel between the East and the West. The transportation eastwardly into Baltimore, during the month, of the principal articles, were as follows:

|                                     |        |          |
|-------------------------------------|--------|----------|
| Bark.....                           | tons   | 187      |
| Coal.....                           | "      | 44,609   |
| Fire Brick.....                     | "      | 187      |
| Fire wood.....                      | "      | 22       |
| Flour.....                          | bbls.  | 51,298.5 |
| Grain.....                          | tons   | 1,070    |
| Granite.....                        | "      | 302      |
| Iron.....                           | "      | 656      |
| Iron ore and manganese.....         | "      | 472      |
| Lard and Butter.....                | "      | 209      |
| Leather.....                        | "      | 180      |
| Cotton.....                         | bales  | 51       |
| Wool.....                           | "      | 1,542    |
| Flaxseed.....                       | cacks  | 10       |
| Soap Stone.....                     | tons   | 79       |
| Lard Oil.....                       | "      | 123      |
| Lumber.....                         | "      | 216      |
| Lime.....                           | "      | 79       |
| Live stock, viz: Hogs.....          | number | 7,742    |
| Sheep.....                          | "      | 4,076    |
| Horses and mules.....               | "      | 137      |
| Horned Cattle.....                  | "      | 242      |
| Meal shorts.....                    | tons   | 212      |
| Pork and Bacon.....                 | "      | 549      |
| Tobacco.....                        | hhds.  | 900      |
| Whiskey.....                        | bbls.  | 5,304    |
| Miscellaneous.....                  | tons   | 484      |
| Hay.....                            | "      | 6        |
| Hemp.....                           | "      | 187      |
| Flour from Washington Branch, bbls. |        | 4,306    |

## RAILROAD IRON.

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via. Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired.

WALKER & BERRY, Quebec & Kingston, Canada.  
BERRY & WALKER, Liverpool, England.

Kingston, C. W., Sept. 15, 1855.

MIDDLETON, WALLACE & CO.,  
LITHOGRAPHERS & ENGRAVERS,

No. 115 Walnut St., Cincinnati.

## RAILROAD BONDS AND CERTIFICATES OF STOCK

Beautifully executed and at moderate rates.

Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.

Engraved in all styles and on short notice.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.**

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**

**Railroad Depots and Station Houses,**

at current rates.

**L. A. OSTROM,**

ug. 16. No. 6 West Third Street, Cincinnati.

**Railroad Iron,**

**1,500 TONS**, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.**, 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

**NOTICE TO CONTRACTORS.**

**PROPOSALS** will be received at the office of the Henderson and Nashville Railroad company in Madisonville, Kentucky, until the first Monday in October next, for the grubbing, clearing, grading and masonry of said road, or any part thereof. The work will be divided into convenient sections to suit bidders, of not less than half a mile. Proposals will be opened at the city of Henderson, on the said first Monday in October, at which time and place the Board of Directors will meet for that purpose.

E. G. SEBREE, Prest.

CHAS. SEYMOUR, Chief Engineer.  
August, 18th, 1855.

5w



**T. N. RAFFINGTON,  
GENERAL ENGRAVER,**

North East Corner Fourth and Walnut Streets, over Ohio Savings Bank,

**CINCINNATI.**

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

**Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES**  
Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE  
ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence with that of Bank Notes—

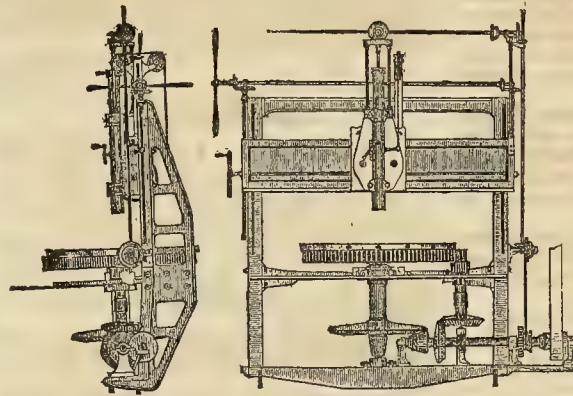
**RAIL ROAD, STATE, AND COUNTY BONDS,  
BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory Notes, Bill and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, &c., &c.**

Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
**GEORGE T. JONES,**  
South-East corner of Main and Fourth Sts., Cin.

**NILES' WORKS.****FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well known class of

**ENGINERS' & MACHINISTS' TOOLS,**

SHAFTING, GEARING,

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.



**MATHEMATICAL INSTRUMENTS.**

**T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,  
CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines, 28 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address,

**THATCHER PERKINS,**

President.

Also, for sale, two Twenty Horse Power Stationary Engines.

Aug. 9th

**THE SCHENCK****MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**

No. 163 GREENWICH STREET,

**NEW-YORK,**

**KEEPS** constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR.

Aug. 9 ly

**D. D. MILLER,**

Manufacturer of

**LOCOMOTIVE, RAILROAD AND HAND**

**LANTERNS,**

190 Water Street, New York.



**Railroad Printing.**

WE have now attached to this office an extensive **Composition and Press Room and Bindery**, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, **Blanks of any description**, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, **Railroad Tickets and Conductors' Checks**. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, **Blank Books**, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

**T. WRIGHTSON & CO.,**  
Railroad Record Office, 167 Walnut St. Cin.

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana, May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,  
CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action  
**SUCTION & FORCE PUMP**

AND  
**Compound Steam Pumping Engine,**



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

**SILVER MEDAL.** (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-1y

**IRON BOILER FLUES.**

**PASCAL IRON WORKS.**

**MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From ¾ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.

**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Granger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly CASH.

R. L. OWEN, Chief Engineer.

Aug. 2, 1855.

aug2 12w

**THE KENTUCKY MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,

President of the Board.

ly26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

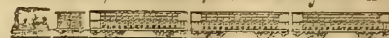
**TERRE HAUTE TO INDIANAPOLIS.**

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNS.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.  
The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in..... 15 HOURS.  
TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indiana, and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

feb. 8-ly

WM. H. SMITH, Conductor.

D M MORROW, Superintendent



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

FOR FREIGHTS IN EITHER DIRECTION

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,

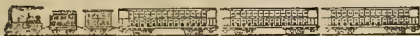
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.  
je. 8†

**TO LOUISVILLE  
IN SIX HOURS.**

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,  
Chief Engineer and Superintendent.

Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

**STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of

**STEREOTYPING,**  
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.  
C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

**1855. New Arrangement, 1855  
COMMENCING MONDAY, JULY 16.****LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.**

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M.,  
10.20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both  
to and from Cincinnati and the East.

LAID WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2.45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.  
CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¾ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30¾ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 14 "      |
| To Pittsburg in.....    | 14 "      |
| To Philadelphia in..... | 30¾ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

**FIVE DAILY TRAINS.**

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10.20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent;

Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Falmouth, Cullenville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M.; stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

|                             |        |
|-----------------------------|--------|
| Covington to Lexington..... | \$3 00 |
| Covington to Paris.....     | 2 40   |
| Covington to Cynthia.....   | 2 00   |

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,

Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices

oct. 17\* CLAYTON &amp; GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad.

Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and at Chicago for South, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,

Cincinnati, June 12, 1855.

Agent.

**W. G. ATKINSON,**

Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

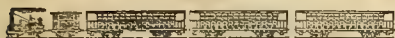
Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared.

mail-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

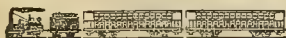
Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

**OLMSTED, TENNIS & PECK,**

Jo. 9-1f

Louisville, Ky.

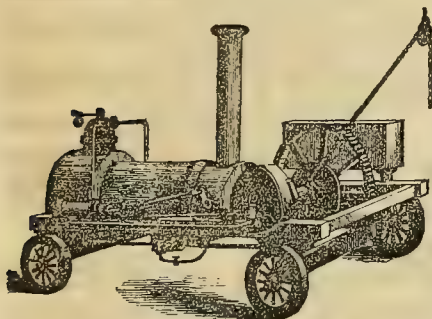
**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

Jy. 27.

**RICHARD NORRIS & SON.****A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

**A. L. ARCHAMBAULT,**

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

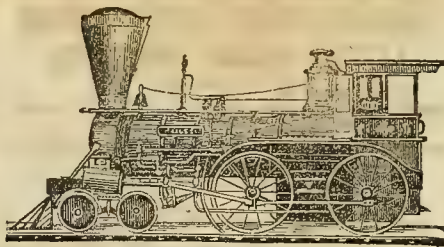
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the MERCURIAL GAUGE, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MRS. DURAND, FULTON and TILTON.

Manufactured by **J. M. BROWN,**

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILT to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &amp;c. &amp;c.

Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**The attention of Railroad Managers and others is called to this valuable improvement in **AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

**WILLIAM SHEKURNE,**

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.



HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifying Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. K. Record of October 20th, 1853. mar1-f

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

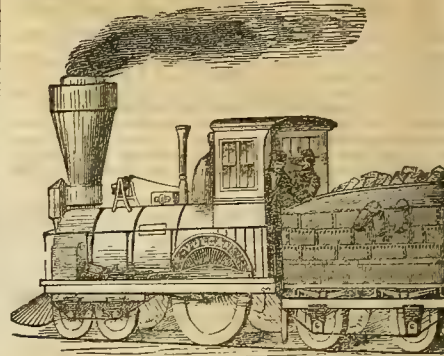
**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. jyt3.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

**MOORE & RICHARDSON.****WASON'S****CAR MANUFACTORY,**Near the Pittsburgh R. R. Shops,  
**CLEVELAND, OHIO.****Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T & F. Wason, Springfield,  
Massachusetts.

**Railroad Car Findings.  
BRIDGES & BROTHER,**

64 Courtland Street, New York.

**Wheels & Axles, Jaws, Boxes, and Castings Fit Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.**Cotton Duck for Car Covering,**  
Of any required width to 124 inches.  
**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

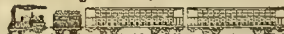
Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes. Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

**ALBERT BRIDGES,**Late Davenport & Bridges, Car Manufacturers,  
Cambridgeport, Mass.

**ALFRED BRIDGES,**  
Late Davenport, Bridges & Co., Fitchburg, Mass.  
toc5

**CAR MANUFACTORY,  
Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron forges, steel plated; and Switches of the most approved patterns.

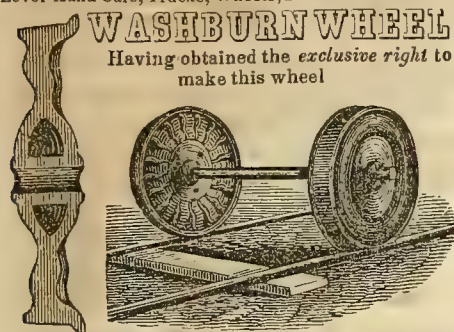
They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan. 25-†



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

**J. DAVENPORT . . . M. D. WELLMAN . . . C. M. RUSSELL**  
**DAVENPORT, RUSSELL & CO.,**

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

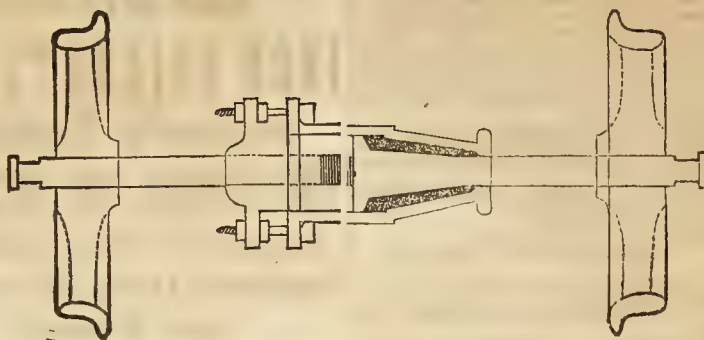
We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 167\* **JOSEPH DAVENPORT.**

### S. C. THOMSON & CO.,

MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n. 124 **NEWARK, N. J.**

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**

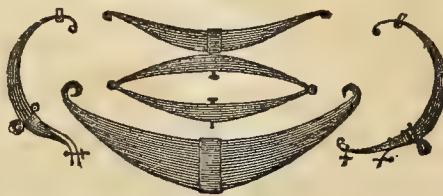
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**I. R. TRIMBLE, Supt. Philad. R.R. Co.**

May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.**

**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**

**THOMAS DOUGHERTY, Master Mach. do.**

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### REFERENCES.

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Oct. 13-11.



**Parry's Anti-Friction Box,**

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

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READ THE FOLLOWING CERTIFICATES.  
OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

Mr. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, **J. EDGAR THOMPSON,**  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

**WILLIAM B. FOSTER, Jr.,**  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

Mr. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,  
**H. J. LOMBART, Superintendent,**  
ENGINEER DEPARTMENT, NORTH P. A. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, **G. A. NICHOLS,**  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

**ROBERT ALLEN,**

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

**Geo. T. PARRY, Esq.,**—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,  
**STRICKLAND KNEASS, Civil Engineer.**

**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
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WHALEBONE AND STEEL WIRE BRUSHES.

**Artesian Well Tubes**  
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**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
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For Smith's use, and

**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

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For warming air, boiling water and heating ovens.

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More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

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**CELEBRATED CAST STEEL,**

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

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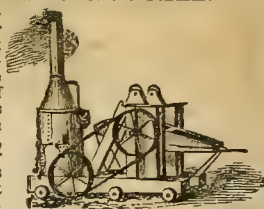
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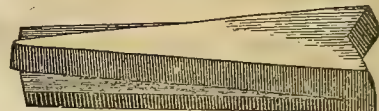
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Important to Railroad Companies, etc.



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**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Gauges**

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

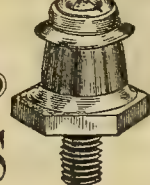
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The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
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**MAPS OF EVERY DESCRIPTION.**



# Railroad Record:

## EXTRA.

### ANNUAL STATEMENT

OF THE COMMERCE OF CINCINNATI; INCLUDING A GENERAL VIEW OF HER PRESENT POSITION AND FUTURE PROSPECTS; HER SITUATION; RESOURCES; GROWTH; STATISTICS, AND ADVANTAGES; AGRICULTURAL, COMMERCIAL, INDUSTRIAL, AND FINANCIAL.

One half of the decade, allotted for the taking of the census of the Republic having expired, we have deemed it advisable, in our present annual statement of the Commerce of our City, to make it more comprehensive than usual, by embracing a general view of the present position, resources, and probable future destiny of this Great Western Metropolis. In carrying out our design, we shall confine ourselves to well known and generally admitted facts, and endeavor to place them in such a position, that "he that runs may read" and understand them.

An old writer on political economy has said, that a great city must be founded on Agriculture, Commerce, and Manufactures. That it might be successful to a certain extent on one or two of these; but that all must combine to make a great, wealthy, and permanent metropolis. Of these elements a measure of agricultural resources, sufficient for the feeding of a city, is necessary to its existence; but that which produces and maintains riches and strength is industry; commerce flows from both. Cincinnati has all these elements, and all in a remarkable degree. The cities on the ocean or the lakes are of necessity chiefly commercial, while those in the mining districts must be exclusively manufacturing. It is only an interior town of a great country; in the midst of a rich agricultural region, and surrounded with the materials necessary to manufactures, which can become one of the great cities of the earth. This fact is demonstrated by the whole history of the world, from the ancient cities of the Nile and the Euphrates, to the London and Paris of Europe. None of those great places had natural advantages superior to Cincinnati. Civilization has changed, and with it the means of wealth and greatness. But that change is in favor of interior towns; by introducing new and rapid modes of communication with all exterior places; with the coasts of the sea, the islands of the ocean, and with distant lands. That great barrier—a long land journey—is broken down by the power of steam, and Cincinnati on the Ohio River sends her provisions to Liverpool, with as much ease as if she were on the Gulf of Mexico, or the shores of the Delaware. In this new condition of affairs, there is no reason why she should not become her own exporter and importer, and when capital accumulates, this will undoubtedly be the case. This change has already commenced, and the only advantage, once supposed to belong exclusively to the ports of the Ocean, or the Lakes, will be shared equally with those of the interior.

The agricultural resources of Cincinnati are undisputed, and while new countries are opened, new towns arise, and new fields bloom with grain, in the new States of the West, not one of them can compare in production with that region of which Cincinnati is the centre, and whose products are poured, by Canal, Railway, and River, into the warehouses of her merchants and the factories of her mechanics. This fact we shall fully demonstrate.

In manufacturing industry, it is not pretended we have a rival in the West. In single fabrics we are outdone by other towns; but in the great aggregate, even the large manufacturing towns of New England sink in the comparison, and all places of the West are entirely secondary. But what Cincinnati is, as a manufacturing town, is nothing to what it must become, when railways penetrating the mining districts to the East and South, will have made coal, iron, copper, and zinc, as common and accessible, as wood has been heretofore.

The articles manufactured from iron, copper, and zinc are constantly increasing in variety and magnitude, and as wood disappears rapidly before the advance of cultivation, substitutes for it are found in the exhaustless mines, which underlie more than one third of the Ohio Valley. As society and civilization progress, a town, which has commenced with the necessary and coarser arts, will proceed to be luxurious and refined, till tens of thousands of artisans are employed on fabrics, which we have scarcely introduced.

What we have here stated in general terms, we

shall now proceed to define and prove by admitted facts and reliable statistics.

#### Art. I. Natural Site of Cincinnati.

The natural site of any place has much to do with its prosperity; indeed more than any one thing. In this respect Cincinnati has been peculiarly fortunate. It is central to the Ohio Valley, in situation, and in its actual locality could not be better placed for convenience and comfort.

The OHIO VALLEY comprehends full 220,000 square miles of area, and in the very centre of this immense space, containing greater natural resources than any other equal area on the earth, lies Cincinnati, which is, and must forever be, its natural metropolis. The straight line distances from Cincinnati to the principal points, in the circumference of the Valley, are as follows:

|                                                                         |            |
|-------------------------------------------------------------------------|------------|
| Cincinnati to Pittsburgh, junction of the Allegheny and the Monongahela | 240 miles. |
| " to Cairo, mouth of the Ohio                                           | 300 "      |
| " to the sources of the Kenhawa                                         | 350 "      |
| " to the sources of the Tennessee                                       | 400 "      |
| " to the Great Bend of the Tennessee, near Huntsville, Ala              | 350 "      |
| " to the mouth of the Tennessee                                         | 280 "      |
| " to the north source of the Wabash                                     | 170 "      |
| " to the north source of the Miami                                      | 150 "      |
| " to the sources of Muskingum                                           | 180 "      |

The average distance of the Southern semi-circumference of the Valley is 285 miles from Cincinnati, and of the Northern 170 miles; making a diameter, passing through Cincinnati; of about 455 miles. This will more evidently appear, by taking several actual diameters, and comparing them together.

|                                                                  |            |
|------------------------------------------------------------------|------------|
| From the sources of the Miami to the great bend of the Tennessee | 500 miles. |
| From the sources of the Wabash to the sources of the Kenhawa     | 420 "      |
| From Cairo to Pittsburgh                                         | 540 "      |
| From the mouth of the Tennessee to the sources of the Muskingum  | 460 "      |

These diameters represent an area, within which Cincinnati actually does control the great body of the trade and production; although in some articles of manufactures, and in others of commerce, Pittsburgh and Louisville share largely. The commerce of the Miami, of the Wabash, of the Scioto, the Muskingum and the Kenhawa almost exclusively belong to Cincinnati; while on the other hand, the trade, at particular points, extends far beyond the natural boundary of the Ohio Valley. Thus Iron is brought to Cincinnati from North-Western Georgia, while the stores, which are manufactured from iron, are carried to Missouri, Iowa, and Kansas. Sugar is sold from Cincinnati, on the shores of the lakes, and immense amounts of provisions and general produce are carried to the Gulf of Mexico. These facts, geographical and commercial, prove that Cincinnati by its central position is naturally the Metropolis of the Ohio Valley. The territory, which is thus exclusively within the control of Cincinnati trade, extending from the sources of the Kanhawa to those of Wabash, and comprising 220,000 square miles, is equal to the extent of France, and is double that of Great Britain and Ireland. Its capacities for feeding a population, and of furnishing materials for manufactures are greater than that of either of those great empires. It is safe to say, that it will contain a population of not less than fifty million's and that it will attain that within a century. Within the circle of population, defined by the trade of a city, experience has proved, that the population of the central mart may, and generally does, reach one tenth that of its commercial district. At present, the population of Cincinnati, Pittsburgh, and Louisville, taken together, make about one tenth of the population of the Ohio Valley proper. If we suppose at the end of a century, the same proportions exist, Cincinnati will be the largest city in America. Leaving that, however, as a matter of opinion, the facts, to which we have referred, prove incontestably, that the destiny of Cincinnati is fixed as the central city of an immense, populous, and fertile region.

These facts, geographical and commercial, prove that Cincinnati, by its central position, is naturally the Metropolis of the Ohio Valley, and that its commercial progress has corresponded with its natural tendency, and even gone beyond the limits, which nature had prescribed.

Such being its general position, let us notice the particular SITE of Cincinnati. The plain on which Cincinnati stands, forms a portion of the Ohio Valley about twelve miles in circumference, which is bisected by the Ohio River, passing in at the North-

East and out at the South-West. On the North half is Cincinnati, and on the South Covington and Newport, separated by the Licking River. This great plain is entirely surrounded by hills, three hundred feet in height, forming one of the most beautiful natural amphitheatres to be found anywhere on the continent, from whose hill tops may be seen the splendid panorama of Cincinnati, Covington, and Newport, with the winding Ohio, its steamers and barges, and all the incessant movement along its shores. While Philadelphia, New-Orleans, Chicago, Buffalo, and even New York, are built on level ground, and afford scarcely any natural variety of position, the site of Cincinnati is one which a painter would have selected for its beauty, and a shrewd mechanic for the utmost convenience of building, and the greatest facilities for water and sewerage.

The facilities for commercial convenience are not less. Opposite the town is one of the deep pools of Ohio, which makes the public landing always accessible to the largest boats. From the water in the Ohio to the northern suburbs, the city of Cincinnati ascends on three successive plains. From low water in the Ohio to the first plain is 60 feet in altitude; from the first plain to the second is 50 feet, and from the second plain to the tops of the hills is 250 feet, which is, in fact, (allowing for a gentle curvature) the level of the great plain of Central Ohio. The ascent from the river, at the Public Landing, and now along a large part of the city, is macadamized, on a gentle grade, so as to present no obstacles to the movement of any sort of business. The ascent from the first to the second plain is also made on a very gradual grade, so that streets and buildings are no where interrupted. The ascent to the summit of the hills is naturally abrupt, but the principal streets are already carried out on good roads, and in the North-East quarter of the city the side-hills are graded into streets, and the city itself is gradually ascending the summits. Extensive villages run back from the crests of the hills, and it is no longer doubtful, that one of the finest quarters of Cincinnati will be built on what a few years since were deemed inaccessible hill-tops.

On the west of the plain of Cincinnati enters Mill-Creek, whose valley, commencing near Hamilton, affords an easy entrance to the Railways, now and hereafter to come from the North-West. On the east side of the plain is the narrow ravine of Deer Creek, giving an outlet to the Miami Canal, and a place for numerous and important factories.

From this topographical view of the site of Cincinnati, it is obvious that it has great advantages in locality. 1st. The depth of water in front of the city, and the extensive and easy grade of the public landings, give every possible facility to river commerce. 2nd. The height of the hills, and the ascent of one plain above another, enable the water to be raised to any required height, and diffused in any quantity to every part of the town. 3d. The same difference of levels, with the gradual slopes, east and west, to the ravines of Deer Creek and Mill Creek, allow the most perfect sewerage and cleanliness. If this improvement has not been already completed, it is not the less certain, that in time it will be accomplished. 4th. The same causes have given a better ventilation, than is commonly found in towns, to a large part of the city. Between the houses on the first plain, and those on the hill sides, there is a difference of 150 feet in level. In time, when an immense population is gathered here, these advantages of locality will tell strongly on the health, comfort, and convenience of the people.

#### Art. II. Extent of Cincinnati.

The actual limits of Cincinnati, as a city, are very extensive, and hence it is not so densely built as most cities. From the machine shops of the Little Miami Railroad to Sedamsville is six miles, is built up in a continuous street. From the foot of Main street to the House of Refuge is three miles, likewise a continuous street. These streets, however, represent the most extensive outlets, in the valleys of the Ohio and Mill Creek. The principal part of the city is comprized between the Ohio River and the hills, and between Deer Creek and Mill Creek, making about three square miles. The suburban villages could only be included within a circuit of five miles radius, making on the Ohio side more than thirty square miles, an area greater than New York Island. A large part of this surface is on the high and airy summits of the hills, which afford room and quietude, free from the smoke and heat of the lower plateau.

The limits of Cincinnati, therefore, include surface enough to accommodate a million of people, without any uncomfortable density of habitation, and with all the conveniences to be found in any civic community.



### Art. III. Radial Lines of Commerce.

Having given the extent of that portion of the Ohio Valley and adjacent districts, which is commanded by the trade of Cincinnati, and must be supplied by its industrial products, let us examine its lines of exterior commerce, and compare them with those of other cities of the valley, and those of the lakes. A central city enjoys the great advantage of collecting products from every quarter. It is not a coast city, accessible to the interior only on one side. This advantage enables it to centralize industry and production; but, as one city cannot consume all products, it must have equal means of diffusion, and an ability to choose between foreign and domestic markets. Interior cities are now furnished with this ability, united with the utmost speed and greatest facility of transit by railway locomotion. The moment this is accomplished, the comparative commercial power of interior cities is measured, by the extent of the *radial lines* to the places of supply and to the ports of foreign commerce. It has already been shown, that no place is more entirely *central*, than Cincinnati. It remains for us to show, that it has the shortest distances to the cities of the Atlantic and the Gulf. The following are the radial lines, from Cincinnati, Louisville, St. Louis, and Chicago, to the chief cities of the coast:

|                   | CINCINNATI | LOUISVILLE | ST. LOUIS | CHICAGO |
|-------------------|------------|------------|-----------|---------|
|                   | Miles.     | Miles.     | Miles.    | Miles.  |
| To Boston.....    | 750        | 830        | 1,050     | 870     |
| " New York...     | 570        | 650        | 885       | 730     |
| " Philadelphia... | 500        | 580        | 825       | 700     |
| " Baltimore...    | 430        | 490        | 750       | 640     |
| " Charleston...   | 500        | 500        | 720       | 770     |
| " Mobile.....     | 640        | 550        | 570       | 790     |
| " New Orleans...  | 720        | 625        | 640       | 840     |

The above table proves Cincinnati to be nearer the Atlantic and the Gulf, at every point, than Chicago; and nearer than St. Louis and Louisville to every point, except Mobile and New Orleans.

A close inspection of the map, in connection with the above table, exhibits the very important fact, that south of the Ohio River there is a greater extent of country, accessible to Cincinnati manufactures, and which can be supplied from no other quarter as well, than is within the exclusive reach of any other city in the United States. It is well known the Southern towns neither are, nor are likely to become manufacturing places. Their supply has heretofore been almost entirely from the East, shipped coast-wise. This, and the return shipment of produce has made the great bulk of the immense coasting trade between the Eastern and the Southern States. But it is very evident, that an article of manufactures, in iron, wood, or leather, for example, cannot be shipped a greater distance coast-wise, than from an interior city; there trans-shipped and there carried on land, in competition with the same articles from the interior, without trans-shipment. Except for the mere coast itself, this competition cannot be maintained by the Eastern manufacturers.

Taking New York, then, as the point of shipment for Eastern manufactures, and Cincinnati for those of the Ohio Valley, the dividing line will run a little east of Wilmington, N. C., Raleigh, Lynchburg, Va., and Johnstown, Pa. Again, taking St. Louis as the point of shipment for the manufactures of the Mississippi, the dividing line with Cincinnati, runs a little west of Nashville, Huntsville, Ala., and Montgomery, Ala.

Here, then, we have the extraordinary fact, that from the banks of the Ohio to the coasts of Carolina, and from Nashville, Tenn., to Lynchburg, Va., there is really no competition with Cincinnati, for the supply of manufactured articles, or of such agricultural products as are marketable here. This extent of country embraces one half of Kentucky, one half of Tennessee, one half of N. Carolina, one half of Alabama, one third of Virginia, and the entire States of Georgia, and S. Carolina. It makes an area of 200,000 square miles of territory, and when once interpenetrated with railways, as it soon will be, will become populous and rich, demanding all the energies of Cincinnati, when fourfold its present magnitude, to supply its wants.

### Art. IV. Comparative Population, within equal radial Distances of Western Cities.

We have said, that large cities are generally about one tenth (in population) of the commercial district, in intimate relation with them. How far

this commercial limit may geographically extend, depends on the magnitude, the capital, and the commercial lines of each place. In some places, like London, they have a commercial intercourse, by water round the globe; and in others, like Cincinnati, they extend, in some directions, as by the Mississippi river, far beyond the local limits of commerce. But every prominent city of commercial importance must have what is called a "back-country," a region supplying and dependent upon itself, for the domestic arts and commerce. Palmyra flourished on the Caravan trade, but perished for want of a country. Tyre was a splendid city, but depended on sea commerce only, and died. On the other hand, Paris, Vienna, Moscow, Peking, and in a great degree London, are supported by the internal, domestic trade of the country around them. It is, therefore, one of the fixed principles of town growth, that it must have a rich, productive surrounding country to be a permanently great and prosperous city.

To show the relations, which the great western towns bear to each other in this respect, we present tables of the population, density of population, and agricultural productions, within a radius of 100 miles around Cincinnati, Pittsburgh, Louisville, St. Louis, and Chicago.

#### I. TABLE of Population within a Circuit of 100 miles.

| PLACES.       | POPULATION. | SQ. MILES. | DENSITY. |
|---------------|-------------|------------|----------|
| Cincinnati... | 1,583,236   | 26,500     | 60       |
| Pittsburgh... | 1,154,920   | 26,500     | 45       |
| Louisville... | 1,002,498   | 26,500     | 40       |
| St. Louis...  | 547,241     | 26,500     | 21       |
| Chicago.....  | 386,539     | *20,000    | 19.3     |

If the distance we assumed (100 miles) were the true distance of domestic, commercial reciprocity, then in round numbers the population of these places in 1850 should have been about 10 per cent. The following table shows the comparison between that result and the actual one.

|                                                 | TEN PER CENT OF LOCAL POPULATION. | CENSUS. |
|-------------------------------------------------|-----------------------------------|---------|
| Cincinnati, Fulton, Newport, and Covington..... | 158,236                           | 136,000 |
| Pittsburgh, Alleghany, and Birm'ham             | 115,492                           | 71,600  |
| Louisville, New Albany, and Jeffersonville..... | 100,249                           | 56,136  |
| St. Louis and Surroundings.....                 | 54,724                            | 82,249  |
| Chicago and vicinity.....                       | 38,853                            | 31,000  |
| Aggregates.....                                 | 467,354                           | 377,085 |

It results from this table:

1. That St. Louis had in 1850 outgrown the surrounding country.

2. That all the others had fallen short, especially Louisville; and Cincinnati had more evenly kept near the growth of the surrounding country.

The relative depreciation of Louisville is unquestionably due to its proximity to Cincinnati, with which there is necessarily an active competition in many articles of trade.

It may be said, that the country around St. Louis and Chicago is new, and therefore has a greater margin for future growth. This is true; but the same thing is true of the Ohio Valley, large districts of which within 100 miles of Cincinnati are yet comparatively unsettled. We have as yet no example of a growth in Missouri and Illinois equal to that of Ohio, in the same space of time. The following exhibits 30 years of growth in Ohio, Illinois, and Missouri, commencing with the first census of each:

Ohio.....45,365..230,760..581,434..937,903  
 Illinois....12,282..55,211..157,445..476,183  
 Missouri..20,845..66,586..140,455..383,702

In 30 years from the first census Ohio had increased 892,000, Illinois increased 464,000, and Missouri 363,000. At the first census of each, Ohio was 33,000 ahead of Illinois, and 25,000 ahead of Missouri; and in 1850 she was 1,130,000 ahead of Illinois, and 1,298,000 ahead of Missouri. To this we may add the general fact, that the growth of the country on the Mississippi River has not been equal to that in the Ohio Valley. There is, therefore, no probability that the growth of population and business in the Ohio Valley will speedily diminish, or that of any other district of country exceed it.

### Art. V. Comparative Agricultural Productions around the Chief Cities of the West.

Having shown in the previous article the proportional progress of population, at equal distances of

time, in the principal cities of the West, we shall now compare the staple agricultural productions, at equal distances around each. For this purpose we assume one hundred miles, as a convenient radius. This giving a diameter of 200 miles, is quite enough to test the agricultural capacities of the region around each city. Assuming this distance, as a test, we have in the following table the results for Wheat, Corn, Rye, and Oats, the leading and staple articles of Grain:

|                | PITTSBURGH. | CINCINNATI. | LOUISVILLE. | ST. LOUIS. | CHICAGO.   |
|----------------|-------------|-------------|-------------|------------|------------|
| Aggregate..... | 34,103,311  | 100,602,049 | 81,339,033  | 40,221,156 | 22,767,411 |
| Wheat.....     | 12,778,609  | 83,779,800  | 68,496,515  | 33,347,586 | 10,071,316 |
| Corn.....      | 7,881,210   | 7,340,060   | 4,142,461   | 2,637,104  | 7,085,567  |
| Oats and Rye   | 13,640,452  | 9,482,189   | 8,720,077   | 4,230,466  | 5,610,538  |
| Bushels.       |             |             |             |            |            |

\* The surface of Lake Michigan was deducted.

NOTE. The above Table comprehends an equal space around each city, and has been formed with great care from the returns in the U. S. Census Tables. It comprehends, around Pittsburgh, 22 counties in Pennsylvania, 16 in Ohio, and 13 in Virginia. Around Cincinnati, 26 counties in Ohio, 27 in Indiana, and 38 counties in Kentucky. Around Louisville, 51 counties in Kentucky, 35 in Indiana, and 2 in Ohio. Around St. Louis, 21 counties in Missouri, and 32 counties of Illinois. Around Chicago, 17 counties in Illinois, 5 counties in Wisconsin, 3 counties in Michigan, and 13 counties in Indiana. These several districts comprehend, within a small fraction, an area included within a circumference, of 100 miles, from each of these places. The surface of Lake Michigan, which falls within this circumference, of course diminishes, by so much, the producing area of Chicago.

Louisville and Cincinnati being only 100 miles distant from each other, the area between them is, of course, repeated, as it belongs equally to both places. This fact, however, is unimportant, as the object is not so much the aggregate of each, but the proportions between them.

This table exhibits some important results, to which we call attention:

1. The amount of Grain produced around Cincinnati is to that around Louisville in the proportion of 5 to 4; to that around St. Louis, as 5 to 2; to that around Chicago, as 5 to 1; and to that around Pittsburgh, as 3 to 1. The amount of Corn produced around Cincinnati, is to that of Louisville as 4 to 3; to that of St. Louis as 5 to 2; to that of Pittsburgh, as 7 to 1; and to that of Chicago, as 3 to 1. Under this state of facts it may be asked, how it is, that some of these ports exhibit annual statements of immense exports of grain, much exceeding those of Cincinnati? The answer will be found in our next remark.

2. That the estimates made of grain exports, by the exports, *in gross*, are entirely erroneous. It is well known, that the great grain staple of America, Indian Corn, is used chiefly in the manufacture of Pork, Beef, and Whiskey. Hence to ascertain the exports of Grain from any port, in comparison with another, the true method is to make an aggregate for each place of all the exports of grain in gross, of whiskey, and of the products of hogs and cattle. We need not say, for it will be seen by reference to

II. TABLE of Grain Products, within 100 miles' circuit of each of the Cities of Pittsburgh, Cincinnati, St. Louis, and Chicago.



the annexed commercial tables, that the exports of grain, flour, whiskey, meats, grease, and oils from Cincinnati, taken together, exceed by far those of any primary place of export. They probably reach in value twenty millions of dollars; a sum, as far exceeding the exports of the same articles from any other place, as the agricultural products of the Ohio Valley exceed those of any other region.

By the table of manufactures annexed it will be seen, that in 1850 the value of food, manufactured in Cincinnati, exceeded fourteen millions of dollars. The greater part of this immense amount arose from hogs and cattle, the former having consumed fifteen bushels of corn each, and the latter thirty, to fit them for market. The export of pork, beef, grease, and oils is, therefore, as much an export of grain, as if the corn had been exported directly to Liverpool. With this advantage to Cincinnati, however, over mere grain ports, that the change of form employed thousands of persons to make it, and left behind large profits. As a grain port, therefore, Cincinnati is not exceeded, while, as a manufacturer of the products of grain, it has no equal. The tables we have given above, destroy the illusion, if any such has existed, as to what is the real centre of grain production, in the United States. If it be thought, that the States on the Mississippi, such as Illinois, Missouri, and Iowa, will, by time and immigration, reach the same magnitude of production, as those on the Ohio, it is a sufficient reply to say, as we have done in reference to the growth of Ohio, that the growth of agricultural production in the States of the Ohio Valley has never been exceeded, and is going on, at this moment, as rapidly as ever. The census of 1850 showed an advance in agricultural production, in Ohio, Kentucky, and Indiana, of 40 per cent on that of 1840, notwithstanding the crop, which appeared in the census of 1840, was a remarkably good one, and that of 1850 was a partial failure. In the Valley of the Ohio is produced half of the Indian Corn grown in the United States, immense as that great staple product is. The State of Ohio stands in 1855 the first agricultural State in the Union, and in the profits of that great business has the Metropolitan City shared the largest.

#### Art. V. Growth of Cincinnati.

Having now considered the Centrality Site, Commercial Radii, and Agricultural Resources of Cincinnati, let us review its actual growth, its manufactures, commerce, and railway lines; comparing its results with those of the most favored and prosperous cities of the United States.

Cincinnati was founded in 1788; Louisville in 1773; Pittsburgh in 1784; St. Louis in 1764; New York in 1613; New Orleans in 1717; Baltimore about 1750; and Boston in 1630. So, that, of all the first class cities of the United States, Cincinnati is the youngest. Let us now compare its growth with that of the others. The true mode of comparing growth, is to commence at the same period of growth, or magnitude in each, and take equal periods of time; or, to take the average ratio of growth, for the whole period. In the following table, we have taken both methods; premising that, as to New York, we are comparing with the city of the most rapid and powerful growth in the world; and, as to New Orleans, with that which has the most extensive and fertile Valley, to sustain it, now inhabited by civilized man:

III. TABLE. Comparing the Growth of Cincinnati and New York, for an equal period commencing with the first United States Census of each.

| CINCINNATI. |             | N. YORK. |             |
|-------------|-------------|----------|-------------|
| Year.       | Population. | Year.    | Population. |
| 1800        | 750         | 1790     | 33,131      |
| 1810        | 2,540       | 1800     | 60,489      |
| 1820        | 9,602       | 1810     | 96,373      |
| 1830        | 24,831      | 1820     | 123,706     |
| 1840        | 46,338      | 1830     | 202,589     |
| 1850        | 115,436     | 1840     | 312,710     |
| Average     | 170p.c.     | Average  | 56p.c.      |

#### DEDUCTIONS FROM THE TABLE.

1. New York increased for fifty years at the average rate of 56 per cent. each decade; which gave her in 1840 312,000 inhabitants, and would have given her in 1850 487,000,—which was only 28,000 less than the census gave,—a difference more than accounted for by the immense increase of foreign trade, created by the partial famine in Europe. The State Census of 1855 shows about the same ratio of increase for the present period.

2. Cincinnati increased for fifty years at an average of 170 per cent., for each decade,—which will give 311,372 in 1860; a number which is indi-

cated by the actual growth from 1840 to 1853. If, however, it were to fall much short of that, it would still be greatly in advance of the growth of New York, at a corresponding period. In 1820 New York had 123,706 inhabitants, and in 1830 had 202,589, an advance of 65 per cent.

3. If, now, we suppose Cincinnati to advance at the average rate of New York,—a ratio below that of this city, at any time,—it will, in forty years from 1850, have 700,000 people. But that is a ratio not one half of what it has heretofore maintained.

IV. TABLE.—Comparing the Growth of New Orleans and St. Louis, for a period of fifty years, commencing with the first Census of each.

| St. Louis. |             | N. Orleans. |             |
|------------|-------------|-------------|-------------|
| Year.      | Population. | Year.       | Population. |
| 1800       | 1,000       | 1800        | 6,000       |
| 1810       | 1,600       | 1810        | 17,242      |
| 1820       | 4,598       | 1820        | 27,176      |
| 1830       | 5,852       | 1830        | 46,310      |
| 1840       | 16,469      | 1840        | 102,193     |
| 1850       | 77,860      | 1850        | 116,375     |
| Average    | 140p.c.     | Average     | 80p.c.      |

#### REMARKS.

1. St. Louis increased at an average rate of 140 per cent., for fifty years; and, at that rate, will have 185,000 inhabitants in 1860. But, on account of the sudden increase between 1840 and 1850, it has been inferred that this rapid rate would be continued. The Agricultural Table (No. —) shows, however, that St. Louis, in that period, grew faster than the country. As a natural, and inevitable consequence, we find, the Census of St. Louis in 1852 gave but 94,819,\* an increase of less than 6,000 per annum, and less than 80 per cent, in a decade.

2. New Orleans has increased at an average rate of 80 per cent.; and if it continues at the same rate, will have in 1860, 208,000 inhabitants; but, the present increase of New Orleans is by no means, as rapid as this; and, unless Railways to the interior of the country hereafter give a new impetus to her commerce, it is evident she cannot continue her former ratio of growth.

New Orleans and St. Louis are, respectively, the oldest cities in the Valley of the Mississippi; and geographically, admirably situated for the purposes of commerce. Yet, we see, that in the race of growth, they maintain no successful competition with Cincinnati.

V. TABLE.—Of the Comparative Growth of Pittsburgh and Louisville, for fifty years.

| Pittsburgh. |             | Louisville. |             |
|-------------|-------------|-------------|-------------|
| Year.       | Population. | Year.       | Population. |
| 1800        | 1,565       | 1800        | 359         |
| 1810        | 4,768       | 1810        | 1,357       |
| 1820        | 7,248       | 1820        | 4,012       |
| 1830        | 15,369      | 1830        | 10,341      |
| 1840        | 31,204      | 1840        | 21,210      |
| 1850        | 76,956      | 1850        | 43,194      |
| Average     | 122p.c.     | Average     | 160p.c.     |

#### REMARKS.

1. In the population of Pittsburgh, given above, are included Allegheny City, Birmingham, and the suburbs. The average increase for fifty years is 122 per cent.; and, if it continue the same, Pittsburgh will have in 1860, 172,900.

2. Louisville has increased for fifty years at an average of 160 per cent.; and, at that rate, will have 111,300 inhabitants in 1860.

Having given this tabular view of the growth of six of the primary cities of the United States,—five of them in the Western States—we present the following comparison of their relative growth:

|            |                                                        |
|------------|--------------------------------------------------------|
| New York   | has increased for 50 years at the rate of 56 per cent. |
| N. Orleans | " " " " " 80 "                                         |
| Pittsburgh | " " " " " 122 "                                        |
| St. Louis  | " " " " " 140 "                                        |
| Louisville | " " " " " 160 "                                        |
| Cincinnati | " " " " " 170 "                                        |

We might find numerous smaller places, sprung up within a few years, which have increased at a more rapid rate than these cities; but it requires many years to show whether the growth of a town arises from natural and permanent causes.

In the comparative growth of the primary cities of the United States, we find that no one has equalled Cincinnati; and it will be remarked, that the ratio of its growth, in the last decade, when it had attained the magnitude of the first city of the

\*Compendium of U. S. Census, page 380. The U. S. Census gave the population for 1st June, 1853; being three years before the St. Louis Census of 1852.

West, was greater than it was in the previous ten years; for this extraordinary fact, there was, and could be but one cause,—its industrial development,—which was equal to the advantages it derived from agriculture, and commerce; of that we will now speak:

#### ART. VI.—Growth and Amount of Manufactures in Cincinnati.

The growth of Manufacturing and Mechanical Industry at Cincinnati, is, in fact, a much more significant index to the sources of its power, and prosperity, than a mere enumeration of its inhabitants. It exhibits not the growth of some one great fabric of cotton, wool, or glass, such as may be found at Lowell, Lawrence, or Pittsburgh, but a great variety of kinds, and branches of the Arts and Manufactures from the coarsest to the finest; which variety and amount place Cincinnati beside the cities of Europe, in its centralization of the Social Arts, and its competency to supply the numerous wants of a highly civilized people. To exhibit this more clearly, and present the manufactures of Cincinnati in a distinct view, we present the following Table, and some of the deductions which may be drawn from them:

| COMPARATIVE TABLE—of Manufactures in Cincinnati, as returned in the United States Census, for the years 1840 and 1850, with the number of Establishments classed, the number of Hands employed, and the Annual Value of Production, to which is added the Ratio of Increase, calculated on the basis of values. |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| CLASS.                                                                                                                                                                                                                                                                                                          | 1840.         |
| Manufactures of Wood.....                                                                                                                                                                                                                                                                                       | 221           |
| Iron.....                                                                                                                                                                                                                                                                                                       | 209           |
| Other Metals.....                                                                                                                                                                                                                                                                                               | 209           |
| Woolen Goods.....                                                                                                                                                                                                                                                                                               | 111           |
| Cotton Goods.....                                                                                                                                                                                                                                                                                               | 177           |
| Textiles.....                                                                                                                                                                                                                                                                                                   | 177           |
| Liquors and Drinks.....                                                                                                                                                                                                                                                                                         | 17            |
| Soap, Candles, &c.....                                                                                                                                                                                                                                                                                          | 20            |
| Hair, &c.....                                                                                                                                                                                                                                                                                                   | 23            |
| Wool, Linen, & Hemp.....                                                                                                                                                                                                                                                                                        | 18            |
| Prints, Ribbons, and Chemicals.....                                                                                                                                                                                                                                                                             | 114           |
| Building.....                                                                                                                                                                                                                                                                                                   | 332           |
| Stone.....                                                                                                                                                                                                                                                                                                      | 1,562         |
| Paper.....                                                                                                                                                                                                                                                                                                      | 47            |
| In Science and the fine Arts.....                                                                                                                                                                                                                                                                               | 139           |
| Carriages, Cars, &c.....                                                                                                                                                                                                                                                                                        | 87            |
| Miscellaneous.....                                                                                                                                                                                                                                                                                              | 264           |
| Aggregate.....                                                                                                                                                                                                                                                                                                  | 1,594         |
| ESTABLISHMENTS.....                                                                                                                                                                                                                                                                                             | 10,608        |
| ANNUAL VALUE OF PRODUCTION.....                                                                                                                                                                                                                                                                                 | \$17,328,651  |
| 1850.                                                                                                                                                                                                                                                                                                           |               |
| Manufactures of Wood.....                                                                                                                                                                                                                                                                                       | 365           |
| Iron.....                                                                                                                                                                                                                                                                                                       | 379           |
| Other Metals.....                                                                                                                                                                                                                                                                                               | 379           |
| Woolen Goods.....                                                                                                                                                                                                                                                                                               | 111           |
| Cotton Goods.....                                                                                                                                                                                                                                                                                               | 177           |
| Textiles.....                                                                                                                                                                                                                                                                                                   | 177           |
| Liquors and Drinks.....                                                                                                                                                                                                                                                                                         | 17            |
| Soap, Candles, &c.....                                                                                                                                                                                                                                                                                          | 20            |
| Hair, &c.....                                                                                                                                                                                                                                                                                                   | 23            |
| Wool, Linen, & Hemp.....                                                                                                                                                                                                                                                                                        | 18            |
| Prints, Ribbons, and Chemicals.....                                                                                                                                                                                                                                                                             | 114           |
| Building.....                                                                                                                                                                                                                                                                                                   | 332           |
| Stone.....                                                                                                                                                                                                                                                                                                      | 1,562         |
| Paper.....                                                                                                                                                                                                                                                                                                      | 47            |
| In Science and the fine Arts.....                                                                                                                                                                                                                                                                               | 139           |
| Carriages, Cars, &c.....                                                                                                                                                                                                                                                                                        | 87            |
| Miscellaneous.....                                                                                                                                                                                                                                                                                              | 264           |
| Aggregate.....                                                                                                                                                                                                                                                                                                  | 3,360         |
| ESTABLISHMENTS.....                                                                                                                                                                                                                                                                                             | 33,098        |
| ANNUAL VALUE OF PRODUCTION.....                                                                                                                                                                                                                                                                                 | \$52,109,371  |
| RATIO OF INCREASE.....                                                                                                                                                                                                                                                                                          | 200 per cent. |

From the above Table may be deduced some important consequences:

1. It appears that while the population of Cincinnati, from 1840 to 1850, increased 150 per cent., the aggregate of its manufactures increased 200 per cent.; proving that its population had not grown in advance of its industry,—and thus was in danger of being arrested in its progress—but, that its industry having increased the most rapidly, was continually creating a demand for population.

2. The details of manufactures prove that the longest established branches, and those for which Cincinnati has had an export trade—extending over the entire valley of the Mississippi—are those which, so far from diminishing in growth, with time, are those in which there is yet the most rapid progress. Such, for example, are the Manufactures



of Iron, the curing of Provisions, the making of Soap and Candles, and of Domestic Liquors. The increase in the manufacture of Iron, was 230 per cent.; of Provisions 175 per cent.; and of Soap and Candles 240. The progress of these manufactures since 1850, may be known by the import of the raw materials,—iron, cattle, and hogs,—which, taken in the aggregate, have increased in the last five years about 100 per cent.

3. The details of the Census, also show, that new branches of manufactures are continually arising, of which the following were added, since 1840, viz:

|                             |                                 |
|-----------------------------|---------------------------------|
| Animal Charcoal,            | Lightning Rod Fasteners         |
| Artificial Flowers,         | Mat Makers,                     |
| Venitian Blinds,            | Mineral Water Factories,        |
| Bonnet Bleachers,           | Mineral Teeth Factories,        |
| Bucket and Tub Factory,     | Morocco Leather,                |
| Caps, Men and Boys',        | Music Publishers,               |
| Railway Cars and Omnibuses, | Perfumers,                      |
| Castor Oil,                 | Planing Machine Factory         |
| Carvers in Wood,            | Platform Scale Makers,          |
| Clock Makers,               | Plug and Bung Factory,          |
| Composition Roof,           | Saddle-Tree Makers,             |
| Die Sinkers,                | Seat Makers,                    |
| Edge Tool Grinders,         | Saleratus Factories,            |
| Florists,                   | Saw Factories,                  |
| Gas Works,                  | Screw Plate Factories,          |
| Gas Lighters,               | Spoke Factories,                |
| Gilders,                    | Stencil Cutters,                |
| Glove Factories,            | Stereotypers,                   |
| Glue Factories,             | Straw Hat and Bonnet Factories, |
| Gold Leaf and Foil,         | Varnish Factories,              |
| Grate Factories,            | Veneer Factories,               |
| Spice and Drug Mills,       | Zinc Washboard Factor's         |
| Hat Blocks,                 | Wine Factories,                 |
| Hot-Air Furnaces,           | Wrought Nail Factory.           |
| Lightning Rods,             |                                 |

This list shows that fifty different branches of manufactures—and some of them quite important—were introduced in ten years, which were not here before. Some of them, such as Wine, Stereotyping, Morocco Leather, Straw Hats, and Bonnets, &c., &c., are destined to be greatly increased.

The character of this list, also shows, that Cincinnati is rapidly becoming a centre and mart for that large and various class of artisans who arise from the luxuries and refinements of life, as well as its wants. Cincinnati, like Paris, will hereafter concentrate this kind of artisan industry, and supply its products to the entire valley of the Ohio. No other town can, in this department, at all compete with it, for no other has such various and numerous kinds of manufacturing and mechanical machinery, which are the basis of, and essential to these finer and more luxurious arts.

In the mean time, the great and substantial elements of manufactures are progressing with almost incredible speed. Take for example, the following progress of Iron Machinery:

|                        |            |                    |
|------------------------|------------|--------------------|
| In 1846 11 establ'm'ts | 190 hands, | \$ 213,000 product |
| In 1840 109 "          | 1,250 "    | 1,728,549 "        |
| In 1850 205 "          | 6,075 "    | 5,779,495 "        |

We think no such rapid increase in any branch of manufactures can be found in the country; much less in any place of the Western States. We shall shew, when we consider the materials for future manufacturing, that there is no probability of any diminution in the ratio by which our iron, and other metallic manufactures progress.

If we were to investigate the progress of manufactures since 1850, the facts would develop the same continued growth. We may refer to some, which are obvious to the eye of the casual observer. One is the manufacture of Locomotives, of Railway Cars, Omnibusses, and other smaller branches, which have grown up from the demand of the Railway business. The annual products of this class of manufactures probably exceed a million of dollars.

Another branch of manufactures, now increasing with great rapidity here, are those connected with Book Publishing; such as paper making, stereotyping, power presses, binderies, and all those kinds of work, connected with the manufacture of a book. We hesitate not to say, that since 1850, the value of books published in Cincinnati annually has doubled. When we consider what an immense business this is in Boston and New York, we can readily see, that in Cincinnati, central to the Ohio Valley, this must hereafter become a great and important branch of manufactures.

Another business which has grown up, almost entirely since 1850, is the making of Wine; and which promises to equal in amount that of the finest provinces of France. By comparing the statistics of the Horticultural Society with the fact, that numerous vineyards have been set out, in the last year

or two, we may confidently state that there are not less than 2000 acres of Catawba vines in cultivation, in the vicinity of Cincinnati, of which 1600 acres are in full bearing. By the average production of the last few years, this area of vines will yield 700,000 gallons, and in a very short time it must be greatly increased. Already dry and sparkling wines, and brandy, commanding the highest prices, are made here, and the demand for them is greater than the supply.

The various branches of Clothing manufacture are also increasing, being diversified by new fashions and wants. Of the fifty new varieties of the arts introduced in the ten years preceding 1850, ten were for the clothing or adornment of the person.

We need not pursue this subject farther. We have proved, by incontrovertible facts, that Cincinnati is still progressing in all departments of Manufactures and the Arts, with a rapidity which has never been interrupted, and which is unequalled in any city of America.

Having thus exhibited the concentration of agricultural products, and the accumulation of industrial arts, in the central city of the Ohio Valley, we shall now proceed to exhibit its means of communication and intercourse with the vast territory, with which it is commercially connected, and of which it is the commercial metropolis. Modern intercourse is maintained chiefly by steam power; and while Cincinnati has her turnpikes running through every portion of the fertile country around her, and while she has the Miami, Wabash, and Whitewater canals extending for many hundreds of miles; yet we shall confine ourselves here to Steam Navigation and Railways.

#### Art. VII. Of Navigation.

Of the 37,000 miles of coast, belonging to the Mississippi, Missouri, and Ohio, with their several tributaries, each and every part is as accessible to boats from Cincinnati, as they are to any other place on these great rivers. As a consequence of this fact, the increase of navigation at Cincinnati has kept pace with the increase of commerce in the whole valley of the Mississippi. Since 1811, the era of steam navigation in Ohio, Cincinnati has been one of the chief places for steamboat building in the West. The following tables exhibit the progress made in this branch of business, viz.:

|                               |         |             |
|-------------------------------|---------|-------------|
| Steamboats built in 1825..... | 14..... | 2,403 Tons. |
| " " 1840.....                 | 33..... | 5,361 "     |
| " " 1852.....                 | 45..... | 12,100 "    |

In the last year there were built also, at Cincinnati, one ship and several canal boats.

The comparative amount of ship-building in the West, as furnished by the Secretary of the Treasury in 1852, was as follows:

|                    | STEAMERS. | TONS.  |
|--------------------|-----------|--------|
| In Pittsburgh..... | 55        | 14,165 |
| " Wheeling.....    | 10        | 1,746  |
| " New Orleans..... | 4         | 1,284  |
| " Nashville.....   | 5         | 479    |
| " Louisville.....  | 27        | 7,312  |
| " St. Louis.....   | 6         | 2,133  |
| " Cincinnati.....  | 45        | 12,100 |

In that year more steamers and greater tonnage were built in Cincinnati, than in New Orleans, Nashville, Louisville, and St. Louis together. Pittsburgh alone in the West has built more steamers than Cincinnati. In the last thirty years at least seven hundred steamers have been launched at Cincinnati, having cost probably fifteen millions of dollars, and giving employment to great numbers of mechanics and artisans.

The increase of Navigation at Cincinnati is indicated by the following table of the number and tonnage of steamboats and barges arrived at Cincinnati annually:

|               | STEAMERS. | TONS.  |
|---------------|-----------|--------|
| 1850-'51..... | 233       | 49,274 |
| 1851-'52..... | 263       | 60,542 |
| 1852-'53..... | 298       | 76,647 |
| 1853-'54..... | 314       | 80,266 |

This presents an increase of 50 per cent in the navigation of Cincinnati, within the last five years.

In the Report on Steam Navigation, made to the Senate of the United States, by Secretary Corwin, in January 1852, we have the following return of Steamboat passengers, to and from the several ports of the West, for the year 1851, viz.:

|                  |           |
|------------------|-----------|
| New Orleans..... | 434,000   |
| St. Louis.....   | 367,793   |
| Louisville.....  | 270,000   |
| Cincinnati.....  | 2,400,796 |
| Pittsburgh.....  | 466,555   |
| Wheeling.....    | 243,170   |

As ferry-boats were included in this account, there is no doubt, that a large number of the passengers at Cincinnati were derived from that source; but as there were ferries at the other ports also, this fact only proves the greater and more active intercourse with the opposite shore, which exists at Cincinnati, than at either of the other places. The superiority in the number of passengers is also greatly due to the numerous and excellent lines of packet boats, which run between Cincinnati and every considerable place on the Western rivers.

For other facts, in relation to navigation, we refer to the Tables of Commerce, appended.

#### Art. VIII. Of Railways.

Of all modern inventions, the Railway is for the purposes of commerce the most useful, and the one which has most influence on the destiny of interior towns. It has given interior cities a power far greater than those on the ocean coast, by giving them the means of creating artificial *radii* and lines of commerce to every point of the great circumference, by which they are surrounded; and if going beyond that, and traversing mountains and valleys, to the remotest parts of the continent, in this respect Cincinnati stands pre-eminent. We have in another place exhibited her immense superiority in centrality of position, in the vast area in which she is the metropolis, and in possessing the shortest radial lines to the great parts. It is evident, however, that the Railway is essential to give a vital, practical power to these superior, natural advantages. Clearly seeing this, her citizens commenced at an early day to plan and execute great lines of Railway, which should connect this city with the principal cities of the Atlantic and the Lakes. In doing this, they were greatly aided by the corporate subscriptions of the city of Cincinnati. A large part of the railway lines originally planned, have been completed; but some of the most important and vital to the interests of this city yet remain unfinished. In the following Table of Railways, complete and incomplete, we have aimed first to distinguish them as *commercial lines*, rather than as separate roads; and secondly, to discriminate the Cincinnati lines, by taking all those which proceed *directly* from the city, however long, and no others. In this relation the New York lines terminate at Cleveland, the Philadelphia line at Pittsburgh, the Baltimore lines at Wheeling; the North line direct at Sandusky, the North-West line at Chicago, the West line at St. Louis, the South-West line at Nashville, the direct South line at Pensacola, and the South-Eastern lines at Savannah, Charleston, and Norfolk. These make ten or twelve direct *commercial radii*, of which five are now complete, or on which there are railway communications; on two others, and the most important, four-fifths of the work is done, and for the others charters have been granted and considerable subscriptions made. In the following Table will be found an account of each line and road, with the parts complete and incomplete, as well as all the collateral and branch routes, which modify these general lines.

TABLE of the Railway Lines leading directly from, or to, Cincinnati, and distinguishing those parts which are complete or incomplete.

##### 1. East Line, New York and Boston, via Cleveland.

|                                         | Finished Miles. | Unfin'd Miles. |
|-----------------------------------------|-----------------|----------------|
| Little Miami Railroad.....              | 64              | none.          |
| Xenia and Columbus R. R. ....           | 54              | "              |
| Cinc. Columbus, and Cleveland R. R. 135 | "               | "              |
| Aggregate.....                          | 253             | 365            |

##### 2. East Line, Philadelphia, via Pittsburgh.

|                                         |     |   |
|-----------------------------------------|-----|---|
| As above, to Crestline.....             | 178 | " |
| Ohio and Penn. R. R. to Pittsburgh. 187 | "   | " |
| Aggregate.....                          | 365 |   |

##### 3. East Line, Philadelphia, via Lancaster.

|                                      |     |       |
|--------------------------------------|-----|-------|
| Little Miami R. R. ....              | 36  | "     |
| Wilmington and Zanesville R. R. .... | 136 | "     |
| Ohio Central R. R. ....              | 86  | "     |
| Hempfield R. R. ....                 | 73  | "     |
| Pennsylvania R. R. ....              | 322 | none. |
| Aggregate.....                       | 653 |       |

##### 4. East Line, Philadelphia, via Marietta.

|                                    |     |       |
|------------------------------------|-----|-------|
| Little Miami R. R. ....            | 23  | "     |
| Pittsburgh R. R. ....              | 15  | "     |
| Cincinnati and Marietta R. R. .... | 75  | 145   |
| Hempfield R. R. ....               | 73  | "     |
| Pennsylvania R. R. ....            | 332 | none. |
| Aggregate.....                     | 653 |       |



|                               |     |
|-------------------------------|-----|
| 5. East Line, Baltimore.      |     |
| Ohio Central R. R. ....       | 141 |
| Little Miami and Xenia .....  | 118 |
| Baltimore and Ohio R. R. .... | 380 |
| Aggregate .....               | 639 |

|                                            |     |
|--------------------------------------------|-----|
| 6. East Line, via Baltimore, via Marietta. |     |
| Cincinnati and Marietta .....              | 113 |
| North-Western (Va.) R. R. ....             | 120 |
| Baltimore and Ohio .....                   | 280 |
| Aggregate .....                            | 588 |

|                                          |       |
|------------------------------------------|-------|
| 7. North Line, Sandusky.                 |       |
| Cincinnati, Hamilton and Dayton R. R. 60 | none. |
| Mad River B. R. ....                     | 153   |
| Aggregate .....                          | 213   |

|                                          |     |
|------------------------------------------|-----|
| 8. North Line, Toledo.                   |     |
| Cincinnati, Hamilton and Dayton R. R. 60 | "   |
| Dayton and Michigan R. R. ....           | 112 |
| Aggregate .....                          | 200 |

|                                    |     |
|------------------------------------|-----|
| 9. North-West Line, Chicago.       |     |
| Cincinnati and Hamilton R. R. .... | 25  |
| Hamilton and Eaton R. R. ....      | 37  |
| Cincinnati and Chicago R. R. ....  | 152 |
| Aggregate .....                    | 254 |

|                                              |     |
|----------------------------------------------|-----|
| 10. North-Western Line, Chicago, as now run. |     |
| Cincinnati and Indianapolis R. R. ....       | 110 |
| Indianapolis and Lafayette R. R. ....        | 64  |
| New Albany and Salem R. R. ....              | 84  |
| Michigan Central R. R. ....                  | 50  |
| Aggregate .....                              | 308 |

|                                   |     |
|-----------------------------------|-----|
| 11. West Line, St. Louis, direct. |     |
| Ohio and Mississippi R. R. ....   | 232 |
| Aggregate .....                   | 103 |

|                                        |     |
|----------------------------------------|-----|
| 12. West Line, St. Louis, indirect.    |     |
| Cincinnati and Indianapolis R. R. .... | 110 |
| Terre Haute and Richmond R. R. ....    | 73  |
| Terre Haute and Alton R. R. ....       | 70  |
| Aggregate .....                        | 373 |

|                                        |     |
|----------------------------------------|-----|
| 13. South-West Line, via Cairo, (Ill.) |     |
| Ohio and Mississippi R. R. ....        | 167 |
| Illinois Central R. R. ....            | 120 |
| Ohio and Mobile R. R. ....             | 102 |
| Aggregate to Mobile .....              | 870 |

|                                               |     |
|-----------------------------------------------|-----|
| 14. South-West Line to Nashville and Memphis. |     |
| Covington and Lexington R. R. ....            | 96  |
| Lexington and Danville R. R. ....             | 36  |
| Cincinnati and Nashville R. R. ....           | 170 |
| Nashville and Memphis R. R. ....              | 215 |
| Aggregate .....                               | 517 |

|                                                   |     |
|---------------------------------------------------|-----|
| 15. South Line, direct; McMinville and Pensacola. |     |
| Cincinnati, Lexington, and Danville .. 96         | 36  |
| South Western R. R. ....                          | 163 |
| McMinville, via Manchester to Monte-              |     |
| vollo .....                                       | 189 |
| Selma and Montevillo R. R. ....                   | 56  |
| Selma to Pensacola .....                          | 140 |
| Aggregate .....                                   | 680 |

|                                                 |     |
|-------------------------------------------------|-----|
| 16. South-East Line to Savannah, via Knoxville. |     |
| Cincinnati to Danville R. R. ....               | 96  |
| Kentucky Union R. R. ....                       | 36  |
| Kentucky Union R. R. ....                       | 90  |
| Cincinnati and Cumberland Gap R. R. ....        | 30  |
| East Tennessee and Virginia R. R. ....          | 40  |
| East Tennessee and Georgia R. R. ....           | 110 |
| Western and Atlantic R. R. ....                 | 100 |
| Macon and Western R. R. ....                    | 101 |
| Central Georgia R. R. ....                      | 191 |
| Aggregate .....                                 | 794 |

|                                                   |     |
|---------------------------------------------------|-----|
| 17. South-East Line to Charleston, via Knoxville. |     |
| Cincinnati to Danville .....                      | 96  |
| Kentucky Union R. R. ....                         | 36  |
| East Tennessee and Kentucky R. R. ....            | 90  |
| Blue Ridge R. R. ....                             | 170 |
| Greenville and Columbia R. R. ....                | 127 |
| Columbia and Charleston R. R. ....                | 62  |
| Aggregate .....                                   | 671 |

|                                                     |     |
|-----------------------------------------------------|-----|
| 18. South East Line to Charleston, via Augusta, Ga. |     |
| Same as No. 16, to Atlanta .....                    | 306 |
| Georgia R. R. ....                                  | 171 |
| South Carolina R. R. ....                           | 137 |
| Aggregate .....                                     | 810 |

|                                                  |     |
|--------------------------------------------------|-----|
| 19. South-East Line to Richmond, via Guyandotte. |     |
| Cincinnati and Marietta R. R. ....               | 75  |
| Gallipolis and Jackson R. R. ....                | 35  |
| Covington and Ohio R. R. ....                    | 180 |
| Virginia Central R. R. ....                      | 138 |
| Aggregate .....                                  | 533 |

|                                        |     |
|----------------------------------------|-----|
| 20. South-East Line to Lynchburgh, Va. |     |
| Cincinnati to East Tennessee, on Vir-  |     |
| ginia R. R., via No. 16 .....          | 96  |
| East Tennessee and Virginia R. R. .... | 130 |
| Virginia and East Tennessee R. R. .... | 135 |
| Aggregate .....                        | 587 |

|                                                |     |
|------------------------------------------------|-----|
| 21. Auxiliary Lines in the East and North-East |     |
| Hillsborough R. R. ....                        | 37  |
| Cleveland, Cincinnati and Zanesville           |     |
| R. R. ....                                     | 61  |
| Pittsburgh, Maysville and Cincinnati           |     |
| R. R. ....                                     | 110 |
| Pittsburgh, Steubenville and Cincin-           |     |
| nati R. R. ....                                | 56  |
| Springfield and Mount Vernon R. R. ....        | 50  |
| Springfield and London R. R. ....              | 20  |

|                                          |       |
|------------------------------------------|-------|
| 22. Auxiliary Northern Lines.            |       |
| Springfield Branch Little Miami R. R. 20 | none. |
| Findlay Branch of ——— Road .....         | 15    |
| Greenville and Miami R. R. ....          | 37    |

|                                        |     |
|----------------------------------------|-----|
| 23. Auxiliary Lines in the North-West. |     |
| Dayton and Western R. R. ....          | 46  |
| Newcastle and Richmond R. R. ....      | 28  |
| Indiana Central R. R. ....             | 108 |

|                                         |    |
|-----------------------------------------|----|
| 24. Auxiliary Lines South-West.         |    |
| Madison R. R., (Ind.) .....             | 87 |
| Shelbyville Lateral R. R., (Ind.) ..... | 16 |
| Jeffersonville R. R. ....               | 77 |
| New Albany and Salem (South) .....      | 51 |

|                                         |     |
|-----------------------------------------|-----|
| 25. Auxiliary Lines South.              |     |
| Atlanta and West Point R. R. ....       | 87  |
| West Point and Montgomery R. R. ....    | 88  |
| Kingston and Rome, (Ga.) .....          | 19  |
| Nashville, Chattanooga and Dalton ..... | 189 |

TABLE. Summary of Railways included in the above table—excluding all those which are repeated,—so as to give the whole aggregate of Railways complete, or in progress, which lead directly to and from Cincinnati, with their immediate Branches.

|                 | Complete Miles. | Incomplete Miles. |
|-----------------|-----------------|-------------------|
| No. 1 .....     | 253             | —                 |
| No. 2 .....     | 187             | —                 |
| No. 3 .....     | 222             | 73                |
| No. 4 .....     | 412             | 145               |
| No. 5 .....     | 435             | —                 |
| No. 6 .....     | 318             | 120               |
| No. 7 .....     | 213             | —                 |
| No. 8 .....     | 28              | 112               |
| No. 9 .....     | 37              | 192               |
| No. 10 .....    | 308             | —                 |
| No. 11 .....    | 232             | 103               |
| No. 12 .....    | 253             | 120               |
| No. 13 .....    | 222             | 435               |
| No. 14 .....    | 96              | 431               |
| No. 15 .....    | 56              | 492               |
| No. 16 .....    | 502             | 160               |
| No. 17 .....    | 189             | 260               |
| No. 18 .....    | 308             | —                 |
| No. 19 .....    | 138             | 275               |
| No. 20 .....    | 135             | 200               |
| No. 21 .....    | 219             | 411               |
| No. 22 .....    | 72              | —                 |
| No. 23 .....    | 182             | —                 |
| No. 24 .....    | 231             | —                 |
| No. 25 .....    | 353             | —                 |
| Aggregate ..... | 5,631           | 3,529             |

NOTE—The differences between this table and the one above, are caused by leaving out the Lines once mentioned from the subsequent aggregate.

#### EXPLANATION AND RESULTS OF THE ABOVE TABLE.

1. It appears that there are either finished or in progress, twenty Radial Lines of Railways from Cincinnati, which comprehend in all no less than *Nine Thousand miles of Railway*; of which two-thirds are finished, in miles; and of the remainder a large portion is in rapid progress. Only two or three of the connecting links in the South-West being uncertain as to the time of their completion. In this statement are included no indirect or transverse lines, except only the legitimately auxiliary roads enumerated under the last five heads. For example, we have not continued the northern lines beyond Cleveland, nor included any of the Southern roads which do not lead directly from Cincinnati to southern parts. It will be seen, that the railway system of Cincinnati is far greater in extent and variety than that of any other city, whatever, when they are enumerated on the same principle—that of including only the direct lines to and from, and their necessary auxiliaries.

2. The above tables show conclusively what railways are now most necessary in order to accomplish the greatest results. Thus, let the following lines be completed, and see the results, viz:

|                                          |     |
|------------------------------------------|-----|
| Ohio and Mississippi R. R. ....          | 103 |
| Lexington and Danville R. R. ....        | 36  |
| Kentucky Union R. R. ....                | 90  |
| Cincinnati and Cumberland Gap R. R. .... | 30  |
| East Tennessee and Virginia R. R. ....   | 40  |

The completion of these roads, amounting; in all, to less than three hundred miles, would accomplish the following remarkable remarkable results:

1. A complete and direct line of railway between Cincinnati and St. Louis, commanding by necessity the direct Railway trade of the West, and bringing to Cincinnati, on the completion of the Ohio and Mobile R. R., all the trade of the South-West which turns to the East or is concerned with manufactures.

A complete railway route to Savannah, Georgia, (route 16)—traversing the heart of Georgia, and connecting Cincinnati with the entire Railway system of the South.

3. A complete railway route (No. 18) to Charleston, (S. C.) via Augusta, (Ga.) which would connect Cincinnati with the railways of South and North Carolina.

4. A direct connection with the important, and to Cincinnati invaluable Mining District of East Tennessee and South-Western Virginia.

Thus by 196 miles of new railway, as estimated in the tables, Cincinnati will be connected directly with Knoxville, (Tenn.) Savannah, Macon, and Augusta, (Ga.) Charleston and Columbia, (S. C.) Wilmington and Raleigh, (N. C.) and with 2,000 miles of railway with which we have now no connection. In doing this, Cincinnati will obtain the exclusive commercial command of at least 100,000 square miles of country in the South and South-East, which has heretofore been chiefly supplied with manufactures from the East, carried to the Southern seaports by water. As we have remarked elsewhere, these articles cannot be transhipped from these seaports, and transported a considerable distance into the interior, in competition with those from an interior city having a direct railway communication. The completion of the lines of railway to the Southern cities would, according to the laws of trade—as heretofore developed in railway experience—give Cincinnati a large and valuable commerce, not merely with Kentucky, Tennessee, and Western Virginia, but even to points in the center of Georgia, South and North Carolina.

The importance and value of the railway connections between the Western and Southern systems of railways cannot be over-rated for Cincinnati. In the advantages of that connection, she will stand without a competitor. She will be at once the metropolis of an interior country, sufficient to support and give employment to the population of an empire.

In view of the magnitude of this subject, the citizens of Cincinnati have recently made handsome subscriptions to the stock of the Lexington and Danville Railroad Company. This link is, it is true, not a large one, but is greatly important, as constituting one part of the connection of which we speak. The most important, and the most difficult part of what remains to be done, is to construct that part of the Southern line which lies between Danville, or some other point which may be judged best, on the Covington and Lexington Railroad, and the State line of Tennessee, in the direction of Knoxville. For the purpose of this connection, the State of Kentucky granted the charter of the Union Railway Company; but nothing has been done beyond the point of organization. This link, it is believed, will not exceed 90 miles in length, and is over a practicable route. On the Tennessee side such charters exist, and such subscriptions made by counties and individuals, as will, it is believed, with the State aid, secure the construction part, at any time, when the line can be made through Kentucky.

In viewing this matter in all its aspects, we believe, that the immense results to flow from this connection extend not merely to the city of Cincinnati, but to all the people, and especially to the agricultural and railway interests, in the interior of Ohio; and we must believe and hope, that a united effort will soon be made to complete a work of commercial and public advantage, incalculable in value and co-extensive with the wide area of the West and South. On the East, the Cincinnati and Marietta, and the Wilmington and Zanesville lines, penetrating a mineral region, the nearest to Cincinnati and the best for the supply of Coal and Iron, will, we have reason to believe, be speedily completed.



On the North, the *Dayton and Michigan Railroad*, to connect Cincinnati with Toledo, on a direct line, is progressing under favorable circumstances.

In the North-West, the direct Chicago line, through Logansport, Ind., has, we are informed, made such financial arrangement, as will enable it to progress towards completion.

In the extreme South-West a work of immense magnitude, and to Cincinnati of great value, is steadily advancing, and has, we believe, at this time two hundred miles in running order. We mean the *Mobile and Ohio Railroad*, which traversing four States in the South-West, will terminate near the mouth of the Ohio, and thence be connected with the *Ohio and Mississippi Railroad*, by the *Illinois Central*. By this route it will be 870 miles to Mobile, while by the water route it is 1650. The South-Western route, direct through Nashville, will diminish this distance to within 800 miles.

In this review we have purposely omitted several unfinished lines of railway in our own neighborhood, which, however useful they may be, in themselves do not form a part of the new and extended lines of commerce, to which we have here specially referred.

The summary of this review is that Cincinnati now has 6,000, and within a very short time will have *full ten thousand miles of railway*, which fall immediately within the circumference of her commerce. Of this vast chain of radiating and connected railways, interpenetrating the whole country, from the mountains to the Mississippi, and from the basin of the Lakes to the Gulf of Mexico, eight thousand miles lead *directly to and from this city*; and the other two thousand are directly auxiliary to the other. They constitute, as we have shown in the above tables, no less than **TWENTY COMMERCIAL RADII**, diverging from this central city to every point of the compass, penetrating thirteen States, and uniting various latitudes, and furnishing the means for the interchange of various products. When we consider, that this is united to fifteen thousand miles of navigable waters, we know not what town in America can present greater commercial advantages. It is true that New York looks out upon the ocean, and that the ocean connects it with other continents; but New York cannot compare with Cincinnati in the number of commercial *radii* on this continent, nor has she any such means by railways and rivers of diffusing the products of her industry through the immense interior of the United States. Some of the cities in the West have facilities of the same kind, but not to the same extent, nor have they such an area of country to deal with within their own unconnected limits.

### The Future of Cincinnati Commerce.

In the previous parts of this article we have then proved, by authentic facts, the following positions:

1. That the **SITE** of Cincinnati, in its position, extent, and convenience, has superior facilities for the accommodation of its inhabitants, and the facilities of commerce.
2. That it is **CENTRAL** to an immense area of country, exceeding 200,000 square miles, and greater than that which now directly contributes to the support of any other large American city.
3. That the **RADIAL LINES** of commerce from Cincinnati to the Ocean Ports are in the average shorter than those of any other large interior town.
4. That corresponding with these facts, the **GROWTH** of Cincinnati has been more rapid than that of any other city of its magnitude in America.
5. That the **AGRICULTURAL PRODUCTION**, within a given distance from Cincinnati, exceeds that within the same distance of any other town in the Mississippi Valley.
6. That the **GROWTH OF MANUFACTURES** in Cincinnati has exceeded that of any other town, and has within a few years increased at a more rapid rate, than in any previous period.
7. That the **PROGRESS OF COMMERCE AND NAVIGATION** has kept pace with the growth and production of the city.
8. That the **RAILWAY SYSTEM**, centering at Cincinnati, is already greater, and when but two or three connecting links are made, will be vastly greater than that which will be concentrated on any one point, constituting *radiating lines* to all that immense circumference which includes the trade of Cincinnati.

Here we might stop with this exhibition of all the elements which can make a city of primary magnitude, wealth, and consequence. But we desire to ex-

hibit some facts, which give reason to believe that the growth of Cincinnati for many years to come will be equally, if not more rapid, than it has ever been.

1. It will be noted, that the *ratio* of growth in Cincinnati for the decade between 1840 and 1850 was much greater than for the previous decade; proving conclusively that the increase of magnitude had not diminished the *ratio* of growth. This *ratio* was very nearly equal to the average for the whole period of its existence; and that *average* was greater than that of any other city, even New York, in America.

2. We have shown (Art. I) that the area included within the natural commerce of Cincinnati was 220,000 square miles. On that area the population is not now more than 30 to a square mile, a large part of it in Kentucky, and Virginia being yet wholly uncultivated. The density of Ohio is 50 to a square mile, and is rapidly increasing. That of Massachusetts is 127. On this fertile territory, therefore, it is easy to see, that in the course of twenty or thirty years the density of the whole area of 220,000 square miles will be at least 60, or some thirteen millions of inhabitants, half the present population of the United States. This will require a metropolitan city of at least half a million of inhabitants; but if it were to have the same population as New York and Philadelphia now bear to the country which trades with them, it would be even larger than they now are.

3. Another cause, and a most forcible one, of future growth to Cincinnati, is found in the extension given by the area of commerce by a connection with the Southern railways. In Art. III we showed, that there was in the South and South-East an immense territory, which has heretofore been supplied from the sea-board with articles of manufacture and merchandize, which by railways would be brought within the exclusive commercial control of Cincinnati. The addition thus made to the commercial territory would be half of Georgia and the Carolinas, and one third of Alabama, Tennessee, and South-Western Virginia, a territory comprising 80,000 square miles. This would be an entire addition to the present commercial area of the city, and in it she would have no competitor. In the article on Railways we have shown, that less than 300 miles of additional railway in Kentucky and Tennessee would make this entire addition. In fact, the connection between Lexington and Knoxville alone would accomplish it. Contemplating the value and magnitude of such a result, we cannot doubt that it will be speedily accomplished; and when done, it will at once afford business and support to at least one hundred thousand people,—more than the city will have without it.

4. Great and important as is the last fact, in considering the future growth of Cincinnati, it is perhaps of less importance than another, which we shall now mention. This is the future **DEVELOPMENT OF THE MINERAL REGION** around Cincinnati. The past experience of this city, as well as that of Philadelphia, proves that it is not at all necessary that a city should be in a mining region, in order to derive advantage from the raw material used in manufactures. But it is necessary that such a city should be comparatively near, and have commercial facilities of transportation to such a mining region. In this respect Cincinnati is almost unrivalled, and it is this fact which has made her what she is as a manufacturing place. The advantages which Cincinnati has as a manufacturing place, she has hardly more than begun to enjoy. This will appear from certain geological facts, stated by geologists who have made personal examinations of the surrounding country.

From the summits of the Alleghany and Cumberland mountains, southward for hundreds of miles, the whole country is underlaid with coal, forming a part of the great central coal basin. In Ohio it extends nearly to the Scioto River. It comprehends Western Virginia, Eastern Kentucky, and East Tennessee. Within easy reach of Cincinnati by railway there must be at least 40,000 square miles of coal-strata, three times the amount possessed by Great Britain. These coal-beds crop out in thousands of places, so as to be convenient for the common fuel of the people, while in numerous places the coal lies in thick strata, intersected by various railways now constructing, and enumerated in the foregoing tables. Over thousands of miles the beds of coal are interstratified with Iron, in quantities sufficient to supply the demands of manufactures through countless ages. Already between sixty and seventy furnaces, in South-Eastern Ohio and Eastern Kentucky, are actively and profitably

engaged in supplying iron, chiefly for Cincinnati. The demand for this article is so constant and so increasing, that many new furnaces are now erecting on the lines of the new railways. On the other hand, the demand for coal at Cincinnati, to manufacture the raw iron into castings and machinery, is so great, that in the last six or eight years the consumption of that article has increased fourfold, and our citizens are looking forward with great interest to the time, when the railways, by moving coal at all seasons of the year, will make the supply of this important product certain and uniform.

Passing further into the South-East, we find the mountain country of East Tennessee, South-Eastern Kentucky, and South-Western Virginia, filled with the most valuable mineral productions; some of which are the only ones necessary to perfect the machinery and manufactures of Cincinnati. In that region are not only coal and iron, in inexhaustible quantities, but also copper and zinc; two metals, in modern manufactures, of inestimable value. From the copper mines of East Tennessee, millions of pounds of copper have already been carried to Savannah, (Ga.) and shipped thence to the manufacturers of the East. From these mines to Cincinnati is a much less distance, by railway, than to Savannah and Charleston, and less than half the distance from Cincinnati to the mines of Lake Superior, or from the latter to the nearest Eastern manufacturers. Hence, the manufacture of all wares involving copper, will, at Cincinnati, have a double advantage over all others, for the supply of the whole interior of the West and South. She will obtain the raw material cheaper, and she will transport the manufactured article to the consumer cheaper. The same is true of the entire iron manufacture, which in the West can be carried on far cheaper than anywhere on the Atlantic. It is estimated, that when the railway is completed to Knoxville, iron can be obtained at Cincinnati, from East Tennessee, cheaper than from any other quarter. We now bring iron from Tennessee, and even from Georgia. The iron men of East Tennessee make iron at the prime cost of \$10 00 per ton—carry it down the Tennessee, and up the Ohio, and sell it in Cincinnati at a profit. It is estimated that iron may be brought from these furnaces by railway, at \$5 00 per ton, and sold in Cincinnati for \$15 00; thus cheapening the raw material to the manufacturer below any price which can possibly rule in the Atlantic States; and affording Cincinnati, if she should avail herself of these advantages, a substantial monopoly of the iron manufacture for millions of people.

Nor is this all. Zinc, lead, and marble are found in East Tennessee, and salt water, stronger than any in the United States, is found in South-Western Virginia. In fine, the opening of the railways to East Tennessee would furnish Cincinnati immediately with inexhaustible quantities, at the cheapest rates, of all the raw materials needed in any of the arts, and place her artisans beyond the power of competition from any quarter whatever.

McGregor has said, in his statistics, that the power of Great Britain lies in her mineral resources.

It is these which create the fire of her furnaces, move her looms, and whirl her spindles. It is these which have built her ships, and furnished the materials of commerce. It is these which have enabled her people to buy food, when their own was deficient. It is these, united with indomitable industry, which have made them a great and mighty nation. But all these, the valley of the Ohio has, in far greater proportion, than Great Britain; and Cincinnati has more than London. What, then, is to arrest its growth? With thousands of miles of navigation; with thousands of miles of railway; with radial lines of commerce greater than those to any other city; with the commercial command of 300,000 square miles of territory, (including that brought in by the Southern Railway); with an indomitable industry; with mineral resources, such as no other city has had; and with all the instruction of science, education, and commerce, what, except the special interference of Providence, can arrest the growth and prosperity of Cincinnati?

### Trade and Commerce of Cincinnati.

We shall now proceed to give a general review of the commerce of this port for the commercial year ending August 31, 1855:

At the close of the previous year, black, portentous clouds were distinctly visible in the horizon of the commercial and financial world, and business men looked to the future with gloomy foreboding.



dings; the past had been far from encouraging, and the future was, as the sequel proved, still more dark; but, as that portion of the night just before day is the darkest, so has it been in the night of disaster and commercial storm which has swept over the country; before which all had to bend—and many, in bending, broke. In the disasters with which the commerce of the country had to contend, during the last two years, it was not to be expected but that our own city, occupying, as she does, a prominent position amongst the leading commercial marts of the Union, should deeply participate. That over-trading, and the railway mania, which was so marked and general for some years throughout the country, was the primary cause of the financial embarrassments and commercial disasters above referred to, there can be no doubt; but that the failure of the crops throughout the Union, in 1854, urged on the difficulties to their climax, is equally certain. In order to place their business in as safe a position as possible, and, if practicable, to prevent it from shipwreck, business men contracted their operations, at once, within as circumscribed limits as possible; credits were in many cases suspended, and in all cases revised and shortened; importations of foreign goods fell off largely at the Eastern cities, and the Western merchants, finding that the failure of the crops would place the balance of trade against them, largely, bought from the East sparingly, and with great caution; so that the general trade of the country has fallen off amazingly within the year just closed; and in this falling off Cincinnati has participated to a great extent, but not as largely as was generally anticipated.

Early in the Fall it was generally conceded that the crops had failed, and that probably not over half an average of wheat, oats and corn had been gathered, throughout the leading agricultural States of the Union. This conviction, together with the previous embarrassments under which the finances of the country were laboring, induced the banks to reduce their circulation as quickly, and as much as possible; and in this, having no regular banks of issue of consequence, but depending upon foreign bank paper chiefly to supply the demands of her commerce, Cincinnati suffered severely.

Private bankers, for some years, and up to the first of last October, done the great amount of what may be termed the banking business of this city; some two or three of them the greater proportion of the deposit business, thereby controlling the merchants' balances, for which the bankers paid interest at the rate of six per cent. per annum, and made loans at rates ranging from 12 to 50 per cent. Railway corporations, in the previous year, which had their works in course of construction, experienced a pressing want of funds, and having in the first place been refused in the foreign markets, and subsequently in the East, entered into a system of borrowing in the West, by hypothecating their stocks, and paying enormous rates of discount, ranging from twenty-four to fifty per cent. per annum, for what they termed temporary loans. These rates appeared so tempting, and the security being deemed good, our bankers, doing the discount and deposit business, were induced to lend the merchants' balances entrusted to them to these railway men; and when the business men called for their balances they were not to be had, and the consequence was, that a general crash ensued, and the private banking business was so completely overwhelmed that Third street, the great head-quarters of bankers and brokers, became like a

"Banquet hall deserted."

With the month of November, came the approach of the business season, but hundreds of business men found themselves unable to do any thing; their money was locked up in the assets of the broken banks, and those who had been enjoying a line of discounts with the banking houses had them suddenly and completely stopped; thus the first of December found our merchants and manufacturers without any bank accommodations whatever; and fully three millions of their active cash capital placed entirely from under their control. This was, undoubtedly, a most unenviable position for a great commercial mart like our's to be placed in, and well calculated to make the stoutest heart quail; but with that energy and perseverance, which have always characterized our manufacturers and our merchants, they pressed on in the best manner possible; assisted each other when it was in their power, and passed through the ordeal manfully and successfully, and though far less business has been done, what was done has been more profitable.

The year has been a remarkable one, in various

ways. At its commencement, commercial confidence had almost disappeared, and every man became afraid of his fellow. Banks, merchants manufacturers, and all kinds of business men, were looked upon with suspicion; bankruptcy at the East, at the West, at the North, and at the South prevailed; failures of a startling magnitude were continually announced blasting whatever hope remained with those who still continued to ride against the storm. This was the state of matters in the fall of 1854; but a few months rolled on, and confidence became gradually restored; the seed time and the Harvest came, and the result was, that the great disposer of all things blessed the Republic with the most luxuriant vegetation and the most abundant harvest ever gathered, and the close of the year finds confidence fully restored; every man looking out upon the bright future full of hope, and anticipating a rich reward. The year has also been remarkable in other ways. The profits realized by our importing grocery houses have been enormous. In no year in the history of our city has this department of trade paid over half as well. The provision business has likewise paid large profits, leaving those engaged in it with a largely increased capital to prosecute the business of the coming season efficiently and extensively. We have before stated that we have no Banks of issue of consequence, and the result is, that we have but little Bank accommodation, but with the experience of the last winter before them, our business men have been very cautious in seeking for, and much more so in depending upon Bank accommodation; they have not looked for it, and have learned to do without it, and there are now scores of our heaviest business houses who have not offered any local paper for discount during the last nine months, and do not make any calculation upon such in the future. We feel satisfied in saying that there is not a commercial city in this or any other country, of even half the importance of Cincinnati, placed in such a position; with a population of two hundred thousand, and a commerce amounting to one hundred and fifty millions a year, Cincinnati has, perhaps, two millions of banking capital, and the two-thirds of this owned by what may be termed private bankers; and yet we have, unaided by the artificial means of banks, carried on our business energetically and successfully.

We have before stated that a large falling off in our business was considered inevitable, owing to the great depression and disasters in trade, but such has not been the case; on the contrary, a considerable increase has taken place in our imports, while the decrease is confined to our exports, which is chiefly to be attributed to the failure of the crops in 1854. In our foreign imports there is a deficiency, but this is the case in all the leading cities; the falling off in importations of foreign goods at New York alone, from the first of January to the first of September, 1855, is nearly thirty-eight millions dollars; being nearly one-third of the entire value of the imports of the previous year.

Below will be found a table, showing the total amount of the value of foreign imports at this port for each month in the last two years, ending the 30th June, with the duties paid.

| 1853-4.              |             | 1854-5.     |            |
|----------------------|-------------|-------------|------------|
| Value.               | Duty Paid.  | Value.      | Duty Paid. |
| July.....\$63,207 00 | \$21,036 25 | \$12,146 00 | \$3,096 89 |
| August... 70,178 63  | 20,910 77   | 22,539 00   | 7,512 55   |
| Sept'r... 136,171 95 | 41,871 36   | 47,130 00   | 18,107 15  |
| Oct'r... 70,913 00   | 23,154 67   | 17,794 00   | 6,013 04   |
| Nov'r... 74,082 00   | 23,049 55   | 6,976 00    | 1,575 35   |
| Dec'r... 112,460 00  | 33,013 45   | 9,783 00    | 2,833 00   |
| Jan'y... 75,240 00   | 24,024 75   | 42,542 00   | 13,176 83  |
| Feb'y... 17,127 00   | 5,239 73    | 18,945 00   | 5,236 80   |
| March... 65,523 00   | 19,160 95   | 30,061 00   | 11,836 50  |
| April... 28,137 00   | 8,753 80    | 32,384 00   | 9,700 55   |
| May... 139,638 00    | 41,641 05   | 74,522 00   | 23,520 35  |
| June... 82,444 00    | 26,158 90   | 13,943 00   | 4,169 60   |
| \$939,751 58         | 288,055 30  | 327,569 00  | 107,309 23 |

The above table shows that the falling off in the imports of foreign goods, for the year ending 30th June last, as compared with the previous year, has been about one-third, and is about the same, in proportion, as it has been at New York.

The total value of the imports at this port, for the year ending August 31, 1855, is \$67,095,741, against \$66,549,856 the year previous, being an increase in favor of the past year of \$545,885; this increase is owing to the increase in the value of the goods imported, and not to any increase in the quantity.

The following tables show what has been the increase and decrease in the leading articles imported and exported:

## Exports.

## Imports.

| Articles.      |         | Incr'se | Decr'se | Articles. |          | Incr'se  | Decr'se |
|----------------|---------|---------|---------|-----------|----------|----------|---------|
| Dollars        |         | Dollars | Dollars | Dollars   |          | Dollars  | Dollars |
| Apples..brls   |         | 6,009   |         | Ap's bls  |          |          | 21,635  |
| Alcohol.. "    | 217,791 |         |         | Br' fcs   |          | 73,408   |         |
| Beef.... "     |         | 49,778  |         | But' bu   |          | 61,928   |         |
| do..... "      | 119,263 |         |         | Beans.. " |          | 21,600   |         |
| Butter..brls   |         | 65,710  |         | But'rls   |          |          | 373,328 |
| do.....kgs     | 149,794 |         |         | do faks   |          |          | 61,268  |
| Bagging pcs    |         | 10,000  |         | Corn bu   | 296,172  |          |         |
| Corn....bus    | 51,000  |         |         | Che bxs   |          | 99,769   |         |
| C'n Meal bis   | 7,000   |         |         | Cotn ba   |          | 303,351  |         |
| Cheese..bxs    |         | 116,355 |         | Cte sks   | 601,234  |          |         |
| Cattle..head   | 217,850 |         |         | F'lr brls | 100,477  |          |         |
| Cotton.bales   |         | 223,211 |         | F's sks   | 79,868   |          |         |
| Coffee...sks   | 4,091   |         |         | Fish brs  |          | 63,977   |         |
| Flour...brls   |         | 472,402 |         | H'mp ba   |          | 153,337  |         |
| Feathers.sks   |         | 40,062  |         | do tns    | 52,412   |          |         |
| Grease....     |         | 91,083  |         | Hogs...   |          | 661,400  |         |
| Grass s'd brls |         | 95,345  |         | Iron ps   | 200,779  |          |         |
| Hay....bales   | 13,456  |         |         | do tns    |          | 845,250  |         |
| Hemp..bales    |         | 14,000  |         | Lard bls  |          | 372,706  |         |
| Hides....lbs   | 4,500   |         |         | Liq'r hd  |          | 102,780  |         |
| do.....no      |         | 23,000  |         | M'se pk   | 4635,240 |          |         |
| Iron....pcs    | 363,474 |         |         | do tns    |          | 1568,140 |         |
| do.....tms     |         | 567,810 |         | Mol's br  |          | 85,307   |         |
| Lard....brls   |         | 208,636 |         | Oats bus  | 48,577   |          |         |
| do.....kgs     |         | 90,757  |         | P'k & bt  |          | 227,052  |         |
| Lard Oil brls  | 84,122  |         |         | do tns    |          | 68,246   |         |
| Lins'd "brls   |         | 37,240  |         | do brls   |          |          |         |
| Molasses "     | 35,000  |         |         | B'lk Prk  |          | 375,203  |         |
| Oil Cake tns   |         | 6,000   |         | Pg Mtl t  |          | 950,850  |         |
| Oats....sks    | 49,000  |         |         | Rye bus   | 35,223   |          |         |
| Potatoes brls  | 24,000  |         |         | Rice tcs  | 62,184   |          |         |
| P'k & Bacon    | 185,000 |         |         | Sugar s   |          | 613,565  |         |
| Childs "       |         |         |         | Salt sck  | 21,874   |          |         |
| do.....brls    |         | 100,000 |         | do brl    |          | 68,000   |         |
| do.....bxs     | 120,000 |         |         | Tea pkg   | 247,235  |          |         |
| do Bulk brs    |         | 40,000  |         | To'co bs  |          | 255,225  |         |
| Rope & T'ne    |         | 48,000  |         | do bx     |          | 107,125  |         |
| Soap....bxs    |         | 13,000  |         | Wine, bl  |          |          |         |
| Sugar.... "    | 25,429  |         |         | do gr cks |          | 107,320  |         |
| Flaxseed "     |         | 8,000   |         | Wine... " |          |          |         |
| Mide...pkgs    |         | 231,430 |         | Wks & b   |          | 42,768   |         |
| do.....tms     |         | 238,807 |         | W'ht bu   | 148,945  |          |         |
| Liquors brls   |         | 800,000 |         | W'ky bu   | 984,036  |          |         |
| Manuf're pcs   |         | 150,000 |         | Lum'rft   |          | 300,000  |         |
| Produce pks    |         | 160,000 |         | Coal bu   | 53,130   |          |         |
| Starch...bxs   |         | 15,000  |         |           |          |          |         |
| Tobacco kgs    |         | 75,000  |         |           |          |          |         |
| do.....bxs     |         |         |         |           |          |          |         |
| [&..... "      |         | 340,000 |         |           |          |          |         |
| Whisky brls    | 925,716 |         |         |           |          |          |         |
| Castings pcs   |         | 500,000 |         |           |          |          |         |
| do.....tons    |         | 94,000  |         |           |          |          |         |

Compared with the falling off in the regular trade of the other leading cities of the country, the above exhibit is quite favorable, and shows that the energy and vitality of our city are unabated, and it is to these may be attributed the fact that our commerce has not been as badly crushed by the commercial storms which have devastated the trade of the Union, during the last year or two, as has that of other leading cities.

And while the contraction of business has diminished our trade, it has added new energy and increased the stability of our commerce and manufactures. The number of buildings which have been erected during the past year has not been as great as in former years; but the value of those which have been erected is vastly greater than in any former year. Whole blocks of buildings have been erected on Fourth, Walnut, Pearl, and Main streets, for business purposes, which, in point of grandeur and costliness, far exceed any which have been hitherto erected in the city. And, in addition to these, hundreds of costly and splendid private residences have been built in various sections of the city, costing from twenty-five to seventy thousand dollars each, fully coming up, in beauty and architectural grandeur, to private residences in any other city in the Union, all going to show clearly and unequivocally, that the extraordinary progress of our city still continues, and that the temporary check which it experienced during the late financial and commercial disasters, has only tended to add solidity to her prosperity, and furnished a guarantee of her future greatness.

The manufacturing business of the city has suffered in common with her commerce, but it nevertheless continues to maintain that vitality which has hitherto characterized it, and new departments are continually arising, increasing the comprehensiveness of this great cause of our prosperity. In another place will be found a table showing the new departments of manufactures which have arisen during the past five years, and under the proper heads we shall make a few remarks upon each of them.

We shall now proceed to review the trade of the city under the various heads, during the year, and shall endeavor to be as brief as possible.

✂ We are indebted to the courtesy of the publishers of Cincinnati Price Current for the use of the type of this article as it appeared in their Journal of this week.



## THE NEW RAILROAD BUILDINGS ON THE MIDDLE GROUND.

As an item of general information perhaps a few figures concerning the new buildings on the middle-ground, now in course of construction, would not prove uninteresting. During a late visit about the grounds, the various works and improvements thereon, we could not help remarking the general durability and massive appearance of the new buildings, already up and nearly completed. In the first place, we notice the Passenger House, Car Depot and Dining-Hall, generally denominated the Passenger Depot. The passenger house and dining-hall portion of the building is 101 feet 4 inches long, by 72 feet eight inches wide, and three stories high; the front end to be ornamented by two massive towers eighty feet high, in one of which will be placed a clock, etc. The first or lower story will be used as a passenger house, ticket offices, baggage rooms, etc. The second as a dining hall, and is to be furnished off in superb style. The third or upper story will be used for sleeping apartments, to be divided off into rooms for the accommodation of fifty or sixty persons. At the end of this building comes the Car house, 401 feet 4 inches long, by 160 feet wide. This explains itself. The walls are very thick. The arches at either end are firmly keyed with stone, and the roof is braced and supported in such a manner as to be perfectly safe and reliable. The two departments form one continuous building of 502 feet in length. The roof being tinned, is perfectly secure from fire, and in no place outside is there any wood exposed.

The next building to attract our attention is the Merchandize or Freight House, a portion of which is nearly ready for use. This building when completed will be 601 feet 4 inches in length, by 77 feet in width, and is placed along side the passenger depot, with space enough between for two car tracks. The style and finish is similar to the other, only more massive and less ornamental. This house will be capable of holding almost any amount of goods that may accumulate for years to come. Besides this, they have two grain houses, each 67 by 151 feet, for the purpose of storing grain awaiting transhipment to the east. A large Engine House is to be erected soon, containing eighteen stalls for locomotives, etc.

The cost of these buildings is estimated as follows:

|                                         |          |
|-----------------------------------------|----------|
| The Passenger House and Dining Hall, .. | \$25,000 |
| Car House, ..                           | 39,000   |
| Freight House, ..                       | 39,000   |
| Grain Houses, each, \$17,000, ..        | 34,000   |

Total cost, .....

The Union depot in contemplation is to be 500 feet long by 69 feet wide, the probable cost of which will be about \$30,000.

Messrs. Smith & Dezendorf, of Cleveland, have the contract for putting up these buildings, and the work since its commencement has been pushed ahead by them, with commendable energy and perseverance.

For the peculiar advantages which these works possess, they probably cannot be excelled by any works of a similar kind in the Union, and for size and durability, they are undoubtedly ahead of any on Lake Erie. The Southern Michigan, Northern Indiana, Toledo, and Illinois, Toledo and Cleveland, and Dayton and Michigan, making five roads in all, are to occupy these grounds for depots, shops, etc. Twenty years hence may not see the works all completed, and the total cost cannot be estimated at less than one million of dollars.—*Toledo Blade*.

## RAILROAD RECORD.

AND

Journal of Commerce, Banking, Manufactures, and Statistics.

## PUBLISHERS' CIRCULAR.

## RAILROAD RECORD.

E. D. MANSFIELD.....EDITOR.  
W. WRIGHTSON, } .....ASSOCIATE EDITORS.  
J. A. JAMES, }

The title at the head of this paper expresses its plan and purpose. The VALLEY OF THE MISSISSIPPI is at this time engaged in works of gigantic magnitude, involving immense interests. Its Commerce has increased at a rate heretofore unknown in history. Its Navigation embraces thousands of vessels of various kinds. Its financial engagements extend over the globe; and its cities are rising to a population and wealth, commensurate with such a country and such a Commerce. The object of the RECORD is to promulgate authentic Statistics and reliable information of the RAILROADS, BANKS, MANUFACTURES, and COMMERCE of this great Valley, and thus, of course, aid the interests of that great body of the public engaged in them.

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CINCINNATI:

THURSDAY MORNING,.....SEPTEMBER 27, 1853.

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### THE MEMPHIS AND GRENADA RAILROAD.

The President of this road, Col. FRANK WHITE, informs us that the track-laying commenced on it yesterday morning, from the Memphis Depot, and will proceed at the rate of about six miles a month. At this rate Hernando (distant 22½ miles by the line of the Road) will be reached in less than four months. There is a little earthwork yet to do between Memphis and Hernando, but this will be completed, and arrangements have been made along the whole line to have the grade, cross-ties, bridging, trundle-work, etc., ready for the track-layers as fast as they can progress. All this will be good news to our friends over the line, and we doubt not they will soon be gladdened by "the shrill whistle" of the locomotive, and aroused from their slumbers by the "rattle and roar" of a railway train. "On wi' the tartan, and now let us ride!"—*Memphis Eagle*, August 31.

VOL. III.—No. 31.

### RAILWAYS AND FINANCIAL CONDITION OF MISSOURI.

Missouri, fronting for a great extent on the Mississippi River, penetrated by the great Valley of the Missouri, and connecting the Far West with both, is admirably situated for railroads. Indeed, a railway system of great magnitude is, sooner or later, a necessity of that State. It is essential to her material prosperity. Forgetting her own youth and trusting too much to the inflated credit of the times, she embarked in a very extensive scheme of railroad construction. The consequence is, that her railroads, which are hardly more than fairly begun, are already flagging for want of means. If the state, which has already done much, does not aid them to a much greater extent, they must either be sold to the State, or to other creditors; for they must stop where they are. This would be a most fatal event to the commerce of Missouri. It is entirely out of the question to maintain a large and growing commerce, in this era of civilization, without the aid of Railways. To stop her railroads at this stage, would be to stop her progress. What, then, can be done? There seems no way but to advance the State aid still farther. To examine this question, let us look into the condition of Missouri Railways. The principal Railroad lines aided by the State, are in money and length, as follows:

|                                 | Length.        | Cost.        |
|---------------------------------|----------------|--------------|
| Pacific Railroad, including the |                |              |
| South West Branch.....          | 560 miles..... | \$31,000,000 |
| North Missouri.....             | 228 " ....     | 9,091,000    |
| Hannibal and St. Joseph Rail-   |                |              |
| road.....                       | 210 " ....     | 6,000,000    |
| Iron Mountain.....              | 80 " ....      | 8,000,000    |
| Aggregate.....                  | 1,078 " ....   | \$44,091,000 |

Thus, it will be seen, that Missouri proposes to make about 1,100 miles of railway, at a cost of *forty-four millions of dollars*. To do this, at once, and in one scheme, seems a startling enterprise. It is, nevertheless, certain that the State can accomplish it, if the work is done economically, and the State aid is given only on condition, that the counties, cities and individuals furnish an equal amount, dollar for dollar. In that way the interest of the State will be guarded, and she can, at any time, secure herself. She will stand in the condition of the ordinary First Mortgage Bondholder, furnishing fifty per cent. of the capital required.

The present financial state of the companies is, as follows:

|                       | Subscriptions.   | State Loan. |
|-----------------------|------------------|-------------|
| Pacific Company.....  | \$4,000,000..... | \$4,000,000 |
| North Missouri.....   | 2,445,855.....   | 2,000,000   |
| Hannibal Company..... | 1,500,000.....   | 1,500,000   |
| Iron Mountain.....    | 1,500,000.....   | 1,500,000   |
| Aggregate.....        | \$9,445,855..... | \$9,000,000 |

It appears from this that *twenty-five millions* must be provided for, before these roads are completed. This seems a stupendous undertaking; yet, as we have said, if time, patience, prudence, and economy are allowed to work,

it may be accomplished. A large portion of the subscriptions made, are of the city and county of St. Louis, which, together, amount to the sum of \$1,500,000. It is not stated how much has been subscribed by the several counties; but, doubtless much.

It is plain, from this statement, that the Missouri Railroads will be arrested, unless other means than private subscriptions can be found; although, it is probable, individual subscriptions can be greatly extended. The modes in which the money may be raised, seem to us to be these:

*First*, the State should double its loans, which gives \$9,000,000 in addition.

*Secondly*, that the City of St. Louis should double its subscriptions, which makes \$1,500,000.

*Thirdly*, that the counties through which the road pass, should subscribe \$3,500,000.

*Fourthly*, when this is done, a second mortgage, subsequent to that of the State, would secure the residue of the money.

If the State, the city, and the counties will not come up to this gigantic work, with the energy and spirit which is probably required, it is plain these works will be unfinished on their hands for many years.

In reference to the financial ability of the State, Mr. ALTEN, President of the North Missouri Railroad Company, gives the following account:

Assuming, then, a land and property valuation of only \$256,970,151, the State, by adding to its present low rate only 15 cents in the hundred dollars, or with a tax of about 35 cents on the hundred, has the means of raising \$899,395. To this, add for the balance in the Treasury at the end of the last fiscal period, for increase in other items of revenue and for expenditures, as they are set forth in the Auditor's report, and the account will stand thus:

|                                               |           |
|-----------------------------------------------|-----------|
| Property tax.....                             | \$899,395 |
| Licenses.....                                 | 112,470   |
| Polls.....                                    | 46,270    |
| Balance in Treasury.....                      | 208,467—  |
| Ordinary Expenditures, interest excluded..... | 202,000   |
| Special Appropriations.....                   | 100,000—  |
|                                               | 302,000   |

Surplus for interest and schools.....\$964,641

The State debt being, at the time in question, \$9,802,000, carrying an interest of \$587,805, the comparison between the remaining revenue as above, and interest liabilities will show as follows:

|                        |           |
|------------------------|-----------|
| Revenue remaining..... | \$964,641 |
| Interest.....          | 587,805   |

Surplus for schools.....\$376,836

In reference to the system of railways adopted by the State, the same gentleman says:

The system is well understood among us. It comprises the roads before mentioned as to those to which the aid of the State credit has been extended. They are the Pacific Railroad, connecting St. Louis with Kansas,



on the Missouri river at the Western boundary of the State; the South-west branch of that road, connecting the road at a point some forty miles from St. Louis, with the South-western section of the State: the Hannibal and St. Joseph Road, connecting Hannibal, on the Mississippi river with St. Joseph on the Missouri river; the North Missouri Road, as before described; and the Iron Mountain Road, connecting St. Louis with the vast and rich iron region in South-eastern Missouri. The aggregate length of these roads is nearly eleven hundred miles. One of these roads will, it is believed, be an important link in the great chain which is to stretch from the Atlantic to the Pacific. When completed, they will develop immense regions of country, abounding in agricultural and mineral resources, and which, for soil, climate, and the means of employing, rewarding and subsisting every branch of human industry, has few equals on earth. A careful examination has shown, that within one hundred and twenty-five miles of St. Louis, is found an abundant supply for the markets of the world, of iron, coal, lead, and copper. The Iron Mountain Road, in from seventy-five to eighty miles from St. Louis, penetrates the heart of the Iron deposits at the Iron Mountain, Pilot Knob, Shepard Mountain, &c. The metal at the Iron Mountain alone has been estimated at 210,000,000 of tons, *above the surface of the ground*. At the Pilot Knob it is judged not to be less. Beyond a circle of one hundred and twenty-five miles from St. Louis, there are still mineral deposits of great value. But there, other elements of wealth, and chief among them the agricultural predominate. It is, however, needless to dwell upon such a subject as the natural capabilities of this great State. They are now too well known and appreciated abroad, to make such an effort necessary. I will repeat only, that the system which proposes to add a new impulse to their development, has the deliberate approval of the people of Missouri. They feel assured that their interests will be promoted by it. They have their pride too far enlisted in its success and honor to suffer it to be discredited by any act or omission of theirs. I am firm in this conviction, and feel strengthened in it, by the recollection that Missouri is a State *whose credit has never been impeached*. She has always met her obligations punctually. Her past conduct is a guarantee for her future conduct. She has the same ability now as heretofore; and doing hereafter as she has done hitherto, will doubtless take care to preserve her character, as a prompt debt-payer, untarnished.

**MEMPHIS & LITTLE ROCK RAILROAD.**—The contractors on this road have finished 24 miles of continuous grade. They are now engaged in finishing four more miles. The cross-ties are arriving. And, it is said, that 1,500 tons of iron have been purchased in New Orleans.

#### THE ACCIDENT ON THE CAMDEN & AMBOY RAILROAD.

We allude to this subject again to notice the almost universal cry for vengeance against this Company, uttered by the N. York Press. No accident that we have heard of lately, neither reckless steamboat racing, nor even the terrible Norwalk tragedy has raised such a storm of indignation among the writers of the New York papers as this accident.

How far the idea of popularizing the papers is connected with this outburst, we do not pretend to say. But this we do say, that these very writers, moved by such a just regard for public safety, have, time and again, travelled over this road and other roads owned by wealthy corporations and having but a single track, and yet have uttered no word of complaint, nor even discovered that a double track was necessary. The train did not happen to encounter a reckless and headstrong driver, who chose to consult his own wishes and believe that it was no concern of his whether a train was coming or not, he wanted to cross the track, and the train had no business there when he came along.

That the Camden and Amboy Railroad should build a double track and protect its highway crossings is very true. It is also true that *every road* in the country, that does even a moderate business, should do precisely the same thing. It is for their interest and safety full as much as for the interest and safety of the public that they should do so. And we trust that this fearful lesson will teach other roads as well as this one, that money spent in rendering their track safe from the interference of reckless men is well spent.

But there is another lesson to be learned from this calamity. Legislatures should provide some adequate punishment for men who wilfully impede a railroad track. It is but a few months since a Wisconsin magistrate admitted to bail at *five hundred dollars*, two men men, who were accused of placing obstructions on the track of the Milwaukee & Mississippi Railroad, and that, too, when the evidence was strong against them. And, if we mistake not, *ten years'* imprisonment is the longest term of punishment in any of the states for this offence *wilfully committed*. The inducements to the farmer to rid himself of his worthless animals, by suffering them to stray on the railroad track, are notoriously so great as to offer a premium for producing accidents. The impunity with which a reckless driver may approach a railroad crossing on the highway, causing accidents and loss of life, and then recover damages for the injuries he sustains, is also notorious. If these writers for the public press, anxious as they are for the public safety, would spend a tithe of the effort they now bestow in abusing the Camden & Amboy Railroad Company, in expos-

ing errors such as these, and in contending for the right and the *whole right*, not only in New Jersey, but *everywhere*, we should soon see a public sentiment spring up which would result in such changes not only in railroad management, but in legislative protection to the lives of travellers as would render travelling infinitely more safe and pleasant.

It is for this that the press should labor. It is not enough to call for a double track on a single railroad. That alone would do, but little for the travelling world. This will only spare chronicling an accident on one to announce a more terrible one on another. That alone is not enough. We must call loudly and continuously for radical reform—reform in management, and especially reform in *protective legislation*.

#### THE DANISH SOUND DUES.

Denmark, from its situation at the immediate entrance into the Baltic, commands the strait that leads into it. Taking advantage of its geographical position under pretence of supporting a system of light-houses and buoys, it has for a long time derived its principal revenue from the tolls thus collected from vessels entering the Baltic. The United States by treaty agreed to allow these tolls during the existence of that treaty. The treaty is about to expire, and our government now notifies the government of Denmark that it will no longer allow these tolls, but that our vessels must pass free through the straits. In this measure our government is borne out by the sentiments and genius of our people and by the fundamental right of the matter. The following extract from the Paris Constitutionnel, however, will illustrate the feelings of a portion of the European governments on this subject.

The Constitutionnel says:

"The American Cabinet, far from asking for a diminution of the dues like other States, brings the question to a close by declaring that they will not pay anything more. What will this pretension lead to? It appears difficult to believe that the United States should succeed in thus regulating, for their own account, a matter which interests the mercantile navy of the whole world. Could the United States be freed from the Sound dues, while the other maritime nations continued to pay them, the trade of the Baltic would soon be closed to all others but the vessels of the Union, which would have an immense advantage over their competitors. The question of the Sound dues can evidently only be settled by common agreement, and by a sort of general congress of all nations."

The Constitutionnel then proceeds to examine what will be the probable effects of the United States persisting in their determination not to come to some arrangement. It says:

"If the United States persist in refusing the payment of the duties, and in declining all the negotiation, then Denmark will either let their vessels pass, in which case no other



vessel of any nation whatever will consent to pay the toll, and Denmark will lose the brightest jewel of her crown, and the most considerable part of her revenue, which would be equivalent to the loss of half her territory, or the Danish cruisers will stop the vessels of the United States on their passage, and if not, the forts will sink them. In that case there will be a war. We need not pause to explain all the consequences of such an event, especially in the present state of Europe. Were such a contingency to be realised it would be hardly possible for European diplomacy not to intervene, actively and with sufficient influence, in a dispute in which all commercial nations have a serious interest. In point of principle, diplomats would inevitably declare against the pretensions of the United States. The latter say that the duties levied by Denmark on American vessels in the Sound, exclusively result from a treaty by which the United States had consented to this tax, but that now, this treaty having expired, Denmark has no right to continue to levy it. Denmark, however, maintains that her right is universal; that the treaty concluded with the United States, like those concluded with other powers, only regulated the exercise of this right; that the Danish government has enjoyed it from time immemorial, and that, even were the origin of the right in question open to doubt, it now exists by prescription. This line of argument has some weight; and it would have still more, had not Denmark for so long a time taken undue advantage of her position by exorbitantly increasing the Sound dues and arbitrarily modifying them, often even so as to cause considerable inconvenience in commercial arrangements. It is thus that this power has prepared a storm and rendered every one hostile to a tax which, had it been established with more moderation, and subject to less change, would undoubtedly have continued to be paid without opposition."

Now what has this question to do with the great railroad interests of our land? Much, very much.

We are not of the number of those who believe that the United States has much to fear from a contest with the governments of the old world. Such a contest, we trust, will not come, and if it should, the advantages are nearly all on our side. We produce every necessary of life, and as for its luxuries, can procure them without the permission of their European majesties. But we are not insensible to the fact, mortifying though it may be, that between our eastern and western settlements we have no means of intercourse but by a circuitous journey over the territory of a distant country. Put together this fact and the threatening tone of this Paris Journal, and then inquire if such a state of things is consistent with the dignity and character of a great and prosperous nation.

Such facts as these call loudly for a *Road in the United States to the more distant member of the Union.*

One span of the bridge over the basin at Albany fell under a crowd of people last week.

#### SHIP CANAL BETWEEN LAKES HURON AND ONTARIO.

"A convention of business men from Chicago, Oswego, Toronto and other places was held at Toronto, on September 13th, to consider the question of a survey for a ship canal between Lakes Huron and Ontario. Among the delegates were some of the most influential gentlemen in the various cities represented. The following is the substance of a verbal report submitted by R. Tully, Esq., C. E.:

The proposed route of the the canal to unite the waters of Lakes Huron and Simcoe and Ontario, was first explored by me in 1846. At that time I considered further exploration was not advisable, owing to what would then be thought enormous cost. In 1851, a second exploration was made, and I ran a line of levels between the head waters of the Humber and the Holland rivers on the lake Simcoe level. The greatest elevation I found at that time was 218 feet. No action was taken on the matter by those who employed me, namely, sheriff Jarvis, Dr. Rees, Dr. Hayes, and the late Vice Chancellor Jameson. On the last exploration recently made, I was led to suppose that the ridges to the east of Yonge street were lower than to the west. On examination I found that this was incorrect, and accordingly turned my attention to the original line, namely, between the head waters of the Humber and Holland rivers, through the township of King. In tracing a valley which avoids a considerable elevation in two instances, and after carefully leveling the same, I found that a line can be procured between the Holland and Humber rivers at this point—with a cutting of not more than 175 feet for 1½ miles, and an average cutting of 40 feet for 6½ miles. Along the proposed route, north and south of this point, there are no difficulties more than of an ordinary engineering nature. The exploration is not yet complete, as the line of levels have not yet been run between the summit and the waters of Lake Simcoe, but as far as I can at present judge, what I have stated may be taken as rather over than under the estimate of the difficulties to be encountered."

The Convention appointed a committee consisting of three from each of the cities of Milwaukee, Chicago, Toronto, and Oswego, to take steps to provide for a thorough instrumental survey of the route and estimates of the cost of a canal capable of passing vessels of 1,000 tons burden.

The convention then recommended another general convention to be called by the Canadian Boards of trade, and to consist of delegates from the Boards of Trade of all the cities on the Lake.

#### OHIO & MISSISSIPPI RAILROAD, EAST END.

The following gentlemen were, on Monday last, nominated for Directors of the Ohio and Mississippi Railroad:

Wm. Neff, V. Worthington, J. S. Niles, J. D. Lehmer, J. P. Kilbreth, N. W. Thomas, T. G. Mitchell, S. J. Broadwell, S. L. M. Barlow, (of New York,) Wm. Glenn, D. H. Horn, John Young, R. Buchanan. This list embraces three of the old Directors, viz: S. J. Broadwell, S. L. M. Barlow, and T. G. Mitchell.

#### EMBEZZLEMENT BY A CONDUCTOR.

The Chicago *Tribune* of Sept. 20, gives the following account of the detection of a series of embezzlements by a conductor on the Chicago and Burlington Railroad. There are few positions in which dishonesty can be more successfully practised, than in that of conductor; and it does the gentlemen engaged in that business credit to say, that few occupations exhibit such rare instances of the exercise of dishonesty.

"AN EMBEZZLEMENT CASE.—The community was shocked on day before yesterday, by the announcement that Mr. O. T. CALDWELL, a well known Conductor on Chicago & Burlington Railroad, had been arrested on a charge of embezzling the funds of the Company, of which he was an employee, to a large amount. The circumstances of the case appear to be about as follows:

"A number of circumstances having led Mr. Hammond, the Superintendent of the Chicago & Burlington Road, to suspect that Mr. Caldwell failed to account for all the money received by him for fare from passengers passing between Chicago & Burlington, and the extent of the discrepancy between the money returned by him, and that returned by other conductors on the same road, and running the same trips, Mr. Hammond, after consultation with the President of the Company, informed Pinkerton & Co., of the North-Western Police Agency, of his suspicions, placed the case for prosecution to detection in their hands.

"There is a regulation of the Chicago and Burlington Railroad, requiring its conductors to return to the office of the Treasurer of the Company, in this city, the identical monies which they receive from passengers for fares, after making their necessary change upon the cars. The existence of this regulation afforded a reasonable cause of suspecting fraud in the present case, and Pinkerton has kept it in sight in his investigations into where the fraud laid.

"These investigations commenced some four months ago. Men in the employ of Pinkerton also were sent out to amuse themselves by traveling from this city to Burlington, and from Burlington to Chicago, and disregarding the earnest recommendation of the signboards to the effect that, "passengers should procure their tickets before taking their seats in the cars," pay their fare to Conductor Caldwell in certain marked bank bills and coin. It was found that money so paid to Mr. C., did not find its way to the office of the Treasurer, and that the regular returns made by him fell short of what they should have been when compared with the number of passengers which he recorded in his little memorandum book on each trip, by certain marks and signs well known to those conversant with Railroad business. More than this, these same men on frequent occasions, received in change from Mr. Caldwell, portions of the said marked money, which had been paid to him a week before for fare, and which had remained in his possession instead of being paid by him to the Treasurer. This method of detection was repeatedly tried, and the evidence in each case fully and carefully noted.

"The proof of Mr. C's dishonesty was thought to be conclusive, and on Saturday last Mr. Pinkerton arrested him. He was taken to jail, where he remained until yester-



day, when he was bailed out by Mr. Hulmé of "Young America," and Captain Vedder, who believe him to be entirely innocent, in the sum of \$6,000, to answer any indictment which might be found against him by the Grand Jury now in session. The Jury has as yet failed to find a bill, and Mr. C. yet remains on bail."—*Chic. Trib.*, Sept 20.

#### THE ACCIDENT IN NEW JERSEY LEGAL ACTION.

Legal action has been begun in consequence of the accident on the Camden & Amboy Railroad. On Saturday last, the Grand Jury of Burlington found a bill of indictment against Israel Adams, engineer, for manslaughter, in causing the death of certain persons by gross carelessness in running his train. He was held to bail in the sum of \$6,000.

We have seen as yet no notice of action against Dr. Heineken, although it was shown at the inquest that it was his wilful and habitual neglect of even ordinary caution, which was the immediate cause of the calamity. The Grand Jury will be recreant to their duty unless they give him also an opportunity to substantiate his innocence, if he can do it. The coroner's jury did not exculpate him, and we do not believe that any other jury that examined the circumstances would do so.

#### RAILROAD COMMISSIONER FOR NEW YORK.

We learn that the election for Railroad Commissioner by the stock and bond holders of the various corporations of that state, held on the first Tuesday of September, resulted in the almost unanimous choice of Wm. J. McALPINE, Esq., of that state.

Mr. McAlpine has been long and favorably known in every section of the Union. And being especially familiar with the railroads of New York, his election to the position of railroad Commissioner is an excellent selection.

#### MAD RIVER & LAKE ERIE RAILROAD.

At a meeting of the stockholders of the Mad River and Lake Erie Railroad Company, held at Sandusky on Thursday, the following Directors were elected to serve during the ensuing year:

E. F. Osborn, Sandusky; W. D. Pickman, David A. Neal, Salem, Massachusetts; Samuel Henshaw, Boston, Massachusetts; J. P. Yelverton, E. C. Litchfield, New York; S. C. Parkhurst, S. S. L'Hommedieu, E. M. Gregory, Cincinnati; William Hunt, Clark county.

The Directors in behalf of the State are Dr. Edwin Smith, Dayton; Hon. James Ewing, Findley; R. E. Runkel, West Liberty.

E. F. Osborn was elected President.

The whole number of shares voted upon was 31,942, representing the sum of \$1,597,100.

#### FORT WAYNE AND CHICAGO RAILROAD.

We learn from a gentleman well informed on this subject, that thirty miles of this road to Plymouth, are completed, ready for the superstructure, and that the company have purchased 3000 tons of iron, which they are now receiving. The work of grading is proceeding also on other parts of the road.

This company during the whole of the financial crisis of the past year, have been quietly proceeding with their work, wisely contracting no debts, and proceeding only so fast as means could be obtained.

## Railroads.

#### SAVANNAH, ALBANY & GULF RAILROAD, GEORGIA.

We give to our readers to-day the Report of the Chief Engineer of this road on its progress during the past year. The report says:

"It is a year since I have had the honor of directing the operations of this Department—during which time, I have so frequently submitted the results of its operations, which reports have been given to the public, that there remains at this time, but little more to be said.

"Previous to my connection with the work, the line had been located from a point three miles west of the corporate limits of this city, on a tangent bearing S. 54 degs. 20 min. W., a distance of forty-seven miles. Upon the Board deciding upon the location for their Depot within the city, I immediately proceeded to make the necessary examinations, preparatory to extending the location to that point. The Eastern and Western points being both fixed, and so short a distance intervening, the only question that arose was the selection of such a position for the line that while a strict economy in distance should be observed, it should at the same time pass over such lands as would enable the Company to secure the right of way upon the most favorable terms. To fulfill these conditions, it was necessary to produce the tangent S. 54 degs. 20 min. W., till opposite the residence of Jacob Geil, Esq., and by means of a gentle curve, follow down Millan's swamp until opposite the dwelling on the farm of Dr. Schley, when it proceeds on a tangent bearing N. 13 degs. 42 min. W., passing in rear of the residence of Major Bowen, and on through the Depot lands of the Company, to the intersection of Randolph and Liberty streets, the present terminus.

"The location having been completed on this end of the line, I next proceeded to extend it in a Westerly direction, crossing the Altamaha River at Doctor Town, and terminating at a point in Wayne County, fifty-two and one-fourth miles from the city of Savannah. The character of this crossing, and the arguments used in favor of its selection, are fully and clearly given in the very able report upon that subject, submitted by the former Chief Engineer, in November, 1853.

"I believe I am safe in saying, that the alignment and gradients of your road are superior to any other in Northern, Middle, or Southern States, and the Company must ever congratulate themselves upon the fact, that the slight sacrifices made in order to secure so superior an alignment will be vastly more than compensated for by the economy and safety with which the road may be worked.

#### TABLE OF GRADIENTS.

| Distance in Miles and feet. | Ascent and Descent in Feet per Mile. | Distance in Miles and feet. | Grade per Miles and feet. |
|-----------------------------|--------------------------------------|-----------------------------|---------------------------|
| 22.640                      | Level                                | 0.5000                      | 9.50                      |
| 8.2760                      | 0.37                                 | 0.2000                      | 13.20                     |
| 3.60                        | 1.58                                 | 0.1500                      | 13.73                     |
| 2.3740                      | 2.64                                 | 0.4700                      | 15.84                     |
| 2.1440                      | 4.22                                 | 0.4200                      | 21.12                     |
| 1.2720                      | 4.75                                 | 0.2000                      | 23.76                     |
| 0.4500                      | 5.28                                 | 0.2400                      | 26.40                     |
| 0.5000                      | 7.92                                 | 0.4600                      | 29.04                     |
| 1.3720                      | 8.45                                 | 2.4540                      | 31.68                     |

#### TABLE OF ALIGNMENT.

|                                     | Length of Curve. | Radius.     |
|-------------------------------------|------------------|-------------|
| Curve No. 1                         | 4,000 feet       | 5,730 feet. |
| " 2                                 | 1,800 "          | 5,730 "     |
| Total length of straight line       | 51 miles         | 750 "       |
| " " of curve and straight line 32 " | 1,320 "          |             |
| Per cent. of curve line             | 2.1-10           | per cent.   |

"The estimates of the cost of your road have always contemplated a first class road. In my plans for construction, while I have had a constant view to the strength and durability of the work, I have not thought any attempt at ornament necessary.

"The road bed has been made eighteen feet wide in excavations, and fourteen feet on embankments—the general ratio of slopes in excavations nine inches horizontal to twelve inches vertical, and on embankments eighteen inches horizontal to twelve inches vertical. The bridging across the Altamaha is a work of considerable magnitude, involving 14,250 feet of first and second class trestle, equal to two and seven-tenths miles across the swamp, and 576 feet Towns' Lattice Bridge over the channel of the river. In order to do away with the necessity of a draw bridge—that most objectionable feature on a road—the river has been crossed at an elevation sufficiently great to admit steamboats, by which it is navigated, to pass freely under the bridge at any time, except during an extreme freshet, and even then the detention could exist but a few hours. The bridge over the Great Ogeechee will be of trestle work, 10,160 feet of second class spanning the swamp and rice lands; and 800 feet first class, the channel of river, including a pivot draw of two thirty feet openings. The Little Ogeechee will be crossed by a bridge of first class trestle, 750 feet in length, and in order to preserve the piling at this point from the action of the salt water worm it will be necessary that they be sheeted with copper or lead.

"Small Trestle Bridges have been used in every case where the drainage has required breaks in the line of embankment; for while, as a general thing, the policy of erecting cheap wooden bridges, in order to avoid the expense of more permanent structures, is an extremely doubtful one, yet, in this case, from the entire absence on the line of road of anything like the building materials required, and the length of time requisite, as well as the great expense which would be incurred in the transportation of stone or brick by wagons over roads which are, during a large portion of the year, almost impassable, have seemed sufficient reasons to warrant the



adoption of temporary structures for water ways, which may hereafter at a comparatively small cost, be replaced by culverts, of brick or stone, when we shall have the facility of transporting the building materials over the road itself.

"The superstructure proposed is to be formed of iron rails of T pattern, weighing fifty-six pounds per yard, laid on cross-ties two feet six inches from centre to centre. A model and template of this rail was submitted by this department some months since.

"The road bed is now prepared for the reception of the track from this city to the twelfth mile, with the exception of 750 feet of trestle work over the Little Ogeechee, and a portion of the embankment over the Little Ogeechee marsh. All classes of work under contract are rapidly advancing towards completion. Messrs. Van Horn and Humphries, contractors for the superstructure on the first sixteen miles, have now delivered upon the Depot lot seven miles of cross-ties, and are ready at the moment the iron is received to commence the work of track laying.

"An early action of the Company in reference to the purchase of iron, is most earnestly to be hoped for; if the contracts were already made, six months must elapse before the iron could be delivered in this city; this, together with the time required in laying the iron, would bring us to a period several months beyond that at which the entire road bed will have been completed.

"The entire road bed is now under contract, with the exception of about 5,000 feet of small trestle bridges between the 16th and 34th miles—these, together with the unlet portions of superstructure, will require to be put under contract as soon as the order for the purchase of iron shall be given.

"From the progress which has been made in every class of work, we have every reason to believe that the contracts will be finished by the time specified.

"The almost unprecedented continuation of dry weather during the last eight months has greatly expedited the work of construction. Messrs. Holcomb & Millen, the contractors for the Altamaha bridge, have availed themselves of this favorable opportunity to push the work forward with vigor, and have already a large portion of the work above the contingencies of freshets—thus allaying, to a great extent, any anxiety that may have arisen in regard to a detention of the work in the event of the prevalence of high water.

"The force is composed entirely of slaves, and is the only efficient class of labor that can ever be employed in this climate. Its value was too clearly demonstrated to this company during the last summer to render necessary that anything more should be said in its favor."

## EQUIPMENT.

|                           |          |
|---------------------------|----------|
| Three Locomotives.....    | \$25,500 |
| Three Passenger Cars..... | 9,000    |
| Three Baggage Cars.....   | 3,600    |
| Fifty Freight Cars.....   | 32,400   |
| Fifteen Gravel Cars.....  | 3,000    |
| Three Crank Cars.....     | 300      |

|                                      |           |
|--------------------------------------|-----------|
| Terminal Depot and Repair Shops..... | \$73,800  |
|                                      | 50,000    |
| Total.....                           | \$123,800 |

The following statement of the financial affairs of the Company, is from the Report of the Treasurer :

## RECEIPTS.

|                                   |              |
|-----------------------------------|--------------|
| Received for Capital Stock.....   | \$144,765 00 |
| Bonds Account issued.....         | 10,200 00    |
| Interest Account.....             | 3,441 82     |
| J. P. Screven, cash advanced..... | 22,648 12    |
|                                   | \$181,054 94 |

## DISBURSEMENTS.

|                              |              |
|------------------------------|--------------|
| For Construction.....        | \$96,646 55  |
| Depot Site.....              | 20,438 75    |
| Surveys and Engineering..... | 20,742 20    |
| Salaries.....                | 7,963 05     |
| Incidental Expenses.....     | 1,307 40     |
| Printing and Publishing..... | 163 35       |
| Right of Way.....            | 61 00        |
| Interest on Bonds.....       | 714 00       |
| Balance.....                 | 33,018 34    |
|                              | \$181,054 94 |

"The balance consists of bonds of the city. In addition to which the city's second instalment of \$100,000 is subject to the call of the Treasurer, showing a balance of \$133,018 34. The amount which has actually passed into the hands of the Treasurer is shown in the above statement."

The Report of the President says :

"Much the larger portion of the contracts for the work are made payable in bonds of the city at par. All of the contracts for grading are of this character except one, which is conditioned upon payment of one-fifth in stock of the Company. That for bridging the Altamaha is payable in money. That for the Ogeechee Rivers is payable two-thirds in money and one-third in city bonds. That for the superstructure is payable one-twentieth in the stock of the Company, and the balance one-half in city bonds, and the other half in money. The only bonds issued by the Company amount to the sum of \$10,200 payable in twenty years, in the purchase of the depot site. A statement of the receipts and disbursements by the Treasurer is herewith submitted. It is proper to explain that the sum of \$22,648 12 advanced by the President, was done at a time when our securities were depreciated. A sufficiency of assets remain from the first instalments called fully to cover this liability. It was considered judicious to make this arrangement rather than submit to any sacrifice of our securities. The second instalment of \$100,000 due by the city in bonds, has not yet been received, but is subject to call. The true balance in favor of the Company should, therefore, be stated at \$133,018 34."

The citizens of Albany, N. Y., are agitating the project of extending their Northern Railroad to Whitehall.

## GREAT WESTERN RAILROAD, CANADA.

At the recent half yearly meeting of the Great Western Railroad, Canada, held at Hamilton, C. W., the following gentlemen were elected Directors for the ensuing year :

C. J. Brydges, P. Buchanan, A. Beattie, W. Dickson, W. Gourlay, R. Gill, R. W. Harris, R. Juson, H. McKinstry, J. S. Radcliff, and J. B. Smith, Esqs.

From the reports we learn that the net revenue from the working of the line, after deducting interest upon the Government loan and the Company's bonds, amounts to £270,614 18 11 Which is equal to a dividend upon the share capital of 9½ per cent. per annum. But by the act of Parliament under which the loan from the Provincial Government was obtained, a sinking fund of three per cent. per annum upon such loan has to be paid, before any dividend is declared. This absorbs a sum for the half year, of..... 11,250 0 0

Leaving the available balance..... £59,364 18 11 From which the Directors recommend the payment of a dividend at the rate of 8 per cent per annum on the share capital of £1,429,725, requiring..... £57,189 0 0

And leaving to be carried to the credit of the next half year..... £2,175 18 11

The following comparative statement of the traffic during the eighteen months that the Great Western Railway has been in operation, will afford satisfactory evidence of the rapid development of the sources of business from which the company derives its present prosperous condition, and also some guide as to the probable increase of traffic in future :

## PASSENGER TRAFFIC.

|                     |          |
|---------------------|----------|
| July 31, 1854.....  | £118,636 |
| Jan'y 31, 1855..... | 143,386  |
| July 31, 1855.....  | 170,901  |

## FREIGHT TRAFFIC.

|                     |         |
|---------------------|---------|
| July 31, 1854.....  | £31,419 |
| Jan'y 31, 1855..... | 51,932  |
| July 31, 1855.....  | 78,292  |

The Directors state that the prospects for the coming year are encouraging. The present weekly receipts average over £4,000 above those of the corresponding period last year.

The actual working expenses of the road have been 48 per cent. of the gross receipts. The locomotive expenses amount to £31,307 12s 6½d. The miles run have been 502,781, making the charge per mile d14.916 as against d15.629 during the previous half year. The number of cords of woods consumed by engines has been 13,373, making the average number of miles run with one cord of wood 37½. The Locomotive stock is in a satisfactory state, and generally speaking more efficient than at the close of the previous half year. The number of engines in steam daily during the half year for the regular trains has been 33, making the average number of miles run by each engine 15,266.

The stock of engines now on the line, (including eight small ballast engines), is..... 53 There are now in the Company's work-shops being put together..... 9 There are still to receive..... 14

Total..... 76

The above stock of engines will not be sufficient to carry on the increasing traffic of the line.

The Car expenses amount to £10,098 19s



2d. The mileage of all cars have been 3,132,392, making the charge d0.774 per mile against d0.941 the previous half year. The improvement of the old stock of cars has been actively carried on during the half year, and the cars generally are now in a good and serviceable state.

With regard to the financial resources of the Company, the Directors say :

"Since the last half yearly meeting, the Company has received a further advance of £70,000 of Provincial Bonds, which were not disposed of on the 31st July. This makes the total bonds received from the Provincial Government £770,000 sterling, upon which, in addition to the interest of 6 per cent. per annum, a sinking fund of three per cent. per annum has to be paid to provide for the liquidation of the principal. This last will amount to a charge upon the revenue of £23,100 sterling, per annum.

"Negotiations have been carried on during the past half year, between the Boards of the Hamilton and Toronto and Great Western Companies, relative to an immediate amalgamation of the two Companies, in place of the deferred union previously contemplated. The Hamilton and Toronto Board have recommended their Shareholders to carry out that proposal, and the Directors of the Great Western Company have now to advise their Shareholders to adopt the same course. This will place both Companies practically upon the same footing as under the first arrangement but avoiding the expense and inconvenience of a double management and set of accounts.

"The line from Galt to Guelph, which has been under construction by an independent company, will be completed as far as Preston, four miles from Galt, in about a month. Acting upon the resolution passed at the last half yearly meeting, and under the authority of the acts of Parliament in that behalf, this Company have agreed to supply the Galt and Guelph Company with the rails required for their line, receiving from the Galt and Guelph Company first mortgage bonds on that line for the value of the rails; subsequently, this arrangement was extended, so as to ensure the completion of the entire line to Guelph at the earliest practicable date. The town of Guelph lately subscribed £20,000 toward the construction of the line. That sum is to be paid in cash to this Company, and an additional amount of first mortgage bonds issued to this Company for such sum as may be required to complete the line beyond said £20,000, and the amount already spent. The Great Western Company to work the line at cost, and, after deducting the interest upon the bonds issued to the Great Western Company, to pay the balance of the net earnings to the Galt and Guelph Company. The total amount of mortgage bonds, including those for the iron, will be about £65,000 currency on the completion of the line, the interest upon which, at six per cent., will be £3,900 currency per annum. It is not possible that the line will fail to yield a net revenue of that amount, so that the Great Western Company's advance is fully secured. The Directors believe that no arguments are necessary to show the advantage of this arrangement, which will bring over the line of the Great Western Company the traffic of a district of country, (the value of which is seen by the earnings of the Galt Depot, amounting last

half year to £12,500,) and which, if this arrangement had not been perfected, would have been seriously interfered with next year.

"In connection with the Guelph line is also the question of the branch from Preston to Berlin (eleven miles.) This line is of so much importance, as securing to the Great Western considerable traffic which must otherwise be lost to it, and the Directors recommend the Proprietors to authorize them to make such arrangements toward aiding in the construction of that line as may, upon full consideration, be found to be desirable, and for the interests of this Company.

"The Sarnia line still remains suspended, nothing having been done upon that branch during the past half year.

"The Bill which, it was stated in the last report, was before Parliament, became law on the 19th May last. By it the Company was authorized to raise an additional amount of share capital to the extent of £1,500,000 currency. Immediate upon the passing of this act, the existing shareholders were offered one new share at par for each original share held by them. A large number were accordingly taken up, on which dividend will accrue, upon the amount paid, during the current half year. It is not expected that any further call will be required during the present year.

"The objects for which this new capital is required are as follows, viz :

1st. "The completion and ballasting of the main line.

2d. "Providing sufficient rolling stock, buildings, and other facilities for accommodating the rapidly increasing traffic.

3d. "The doubling of the line from Hamilton to London, which the extent of traffic renders absolutely indispensable.

4th. "The providing and rolling stock and stations for the Hamilton and Toronto Railway, and for the completion of that line into Toronto, and

5th. "The completion of the line from London to Sarnia.

"Upon this latter point, the Directors must express their conviction that the Sarnia line will prove to be a very valuable portion of the Company's property, the traffic upon it promising to be considerable when the completion of the Railway through northern Michigan to Grand Haven, now under construction, places the Great Western Railway in direct connection with Milwaukee and the State of Wisconsin, and the rich district in Michigan through which the line passes. The Directors, therefore, recommend that the Sarnia line be proceeded with when the period for which it was agreed to be suspended has expired.

"By the act of the Legislature, before alluded to, the mode of holding the meetings of the Company has been changed. In place of a General meeting once a year, half yearly meetings in March and September have to be held, at which full statements of account, and a report for the preceding half year are to be laid before the shareholders. The election of Directors is also to take place at each September meeting, when two Auditors, being shareholders are also to be elected for the ensuing year. Power is also given by the act for the calling of special general meetings when necessary, and providing for the regulation of several matters of importance.

"The Directors trust that the adoption in the act, of the plan pursued by all English

Railway Companies, of affording full reports and accounts semi-annually, in place of only once a year, as provided for in this company's original act, will meet with the approval of the shareholders."

#### EVANSVILLE AND INDIANAPOLIS STRAIGHT LINE RAILROAD.

The following circular from O. H. Smith, Esq., President of this road, to the inhabitants along the line of the road, embraces some plain truths, plainly expressed. The idea that the people along the line, those most directly and immediately interested and to be benefitted, must prepare the road bed for the superstructure, cannot be too strongly insisted on. If they will not do this, they are unworthy to receive the benefits of railroad facilities and developments.

#### TO THE CITIZENS OF THE WHITE RIVER VALLEY.

Knowing the deep interest we feel in common in the success of the Straight Line Railroad, running from Evansville to Indianapolis through your valley, and having recently returned from the East, where I have been with Mr. Carpenter, on business of the Company and Contractors, and not having the time to see or correspond with many of you, I avail myself of this method of informing you that we found our prospects east quite as cheering as we had anticipated; so much so as to warrant us in repeating that if we all do our duty at home, we cannot fail of complete success. While we say this, it would be unjust to you, as well as to ourselves, to encourage the idea that the road will be prepared for the iron, with the means of those who have no interest in the soil, or the country through which it passes. This must not be expected. We must do that much of the work with our home subscriptions, and then we can obtain the Iron and Rolling Stock with the proceeds of our bonds, without further home aid. To that end, our subscriptions, although large, must be considerably increased on the line, and we now appeal to you, who have not subscribed, but who are so deeply interested in this great work, to give us your aid in a substantial form, to a result that must pay well on your stocks, and make your Valley what it never can be without our road shall be in operation.

#### TO OUR SUBSCRIBERS.

You are aware that in consequence of the short crops, and scarcity of money last year, we have forborne to press the collections of the installments due on your subscriptions, causing great efforts and considerable sacrifices on the part of the Company and contractors, to meet the estimates as the work progressed, every dollar of which has been promptly paid. We are now gratified to know that the crops of the Valley are very heavy this year. The Wheat crop of the Counties through which the road runs, and the adjoining Counties, cannot fall short of 2,000,000 of bushels, and the Corn crop must exceed 20,000,000 of bushels, which must go off at fair prices, enabling you to increase your subscriptions, and to meet the installments due. I have just returned from the Southern part of the line. I find the contractors are progressing well with a full force on the first division, the gradation of which is about three-fourths done, equal to about forty miles of finished road. The Company having assurances that the necessary stock will be



immediately closed on the lower part of the second general division, the contractors expect to commence the work North of the crossing of the Ohio & Mississippi Railroad; this fall. We remark generally, that each continuous division of the road from Evansville will be completed and put to use as fast as the means will permit, so as to move forward with due caution, insuring safety, and good faith to all concerned.

We have one of the best alignments in the State, 155 miles in length, between Indianapolis and Evansville, and only five miles longer than an air line, with easy grades and few curves. The country through which the road runs, in point of agricultural productions, and mineral wealth, of Iron, Marble and Coal, is unsurpassed by any section of the West. Our local freights must be immense, while our through business will be all that could be desired. In a word, we have everything to encourage us to press on with this great enterprise, whose stocks must rate high, while it will add, beyond any present calculation, to the prosperity of Evansville, Indianapolis, and the whole White River Valley. I, therefore, earnestly urge you to be prepared to meet our collectors and solicitors, who will visit you shortly. We must have your aid this fall, so as to enable us to press forward to completion with the first general division this season, and to extend the work to Indianapolis without unnecessary delay. You may rely upon the continued exertions of the officers and contractors to that highly important result.

O. H. SMITH, *Pres't.*

#### EATON & HAMILTON RAILROAD.

The following circular has been issued by the President and directors of this road to the stockholders:

It is proposed that this Company—for the purpose of obtaining means to pay off its floating or unfunded liabilities, including its issue of 12 per cent. Domestic Bonds—shall issue 300 Bonds, of \$1,000 each, equal to \$300,000, having twenty years to run, be made payable at the Ohio Life Insurance and Trust Company Bank, in the city of Cincinnati, bear interest at the rate of four per cent. per annum, payable upon semi-annual coupons at the same place, and be convertible at the pleasure of the holder, during the first five years into the capital stock of the Company at par. Payment to be secured by a pledge of the faith of the Company, a mortgage on the Road and its appurtenances, and an hypothecation, and placing in the hands of a Trustee to be mutually selected, of 133 of its Real Estate Bonds, 30 of its first and 37 of its second mortgage, Richmond and Miami Bonds of one thousand dollars each, as collaterals. The President to be authorized to sell them at not less than fifty cents to the dollar of their specified value, reserving the privilege of redeeming any or all of them at any time prior to maturity, by paying, over and over the above interest the amount originally paid by the purchaser, with so much of the remaining face of the bond as shall bear an equitable arithmetical proportion thereto, times of redemption and maturity being elements of the calculation; and reserving, also, the privilege on the part of the Company of selling at pleasure any of the collaterals at not less than seventy-five cents to the dollar of their specified value, and applying the proceeds to such redemption; in which case, or, in case of the conversion of any of the bonds, a proper amount of

the collaterals to be re-delivered to the Company.

An outline of this plan was agreed upon and recommended by the stockholders of the company at a general meeting on the 22d of January last, and an ineffectual effort made to render it available. Its failure may, it is believed, be attributed principally to the then stringency of the money market, but in part, doubtless, to want of confidence in the security offered. Be that as it may, however, the members of the board of directors, in addition to their own, have continued to carry the company's floating liabilities upon their individual names, until they are satisfied that whatever else may be urged against the measure, neither of the reasons alluded to can now be relied on as an excuse for not at once coming forward and relieving them of their burden. Whilst the financial stringency then so justly complained of has assumed the more agreeable shape of history, such additional securities are proposed as to render the investment beyond peradventure, a safe as well as a profitable one. But, if even these inducements shall fail to satisfy all, a still further one may be found by the stockholders, in the fact that, however gracefully those liabilities may be deemed to rest upon the individual shoulders of the members of the board, the system is both hazardous and expensive; hazardous, as depending upon the circumstances, if not the caprice, of the money lender at each of the rapidly occurring periodical renewals; and expensive, as involving such a frequent repetition of discounts, as to amount to largely more than the highest rate of interest paid, or proposed to be paid, upon any of the other liabilities of the company.

As the interest to be most deeply affected by this operation is that of the stockholder, it has been determined as an act of justice towards him, that subscriptions be received from such only, until after the 20th instant, when they will be invited from others as well, until the entire issue shall be disposed of.

Your attention to, and co-operation in, this matter, is respectfully requested.

I am very respectfully,

DAVID BARNET, *Pres't.*

These bonds, it will be seen, draw but four per cent. interest, and with these it is expected to take up 12 per cent. bonds and a floating debt. Capitalists know well that money is worth, anywhere in this country, from six to ten per cent. Hence if they take this loan at all, they will do it at such a rate as to get their usual rate of interest. The company will therefore have to sell their four per cent. bonds at such a discount as will make the investment pay the capitalist a larger rate of interest, and when the bonds are due, pay back to the holders, not the price at which they were sold, but the full face of the bond. Whether this is wise or not, the directors have undoubtedly considered. For ourselves, we believe in making railroad securities worth their face, and would therefore prefer to see such a rate of interest named as will enable the company to realize the par value of the bond, provided the security they offer is ample. If it is not, the company must eventually pay the risk of the speculation. The capitalist will not stake his money on it.

#### SALE OF STATE ROAD CARS BY THE SHERIFF.

On Tuesday the 4th inst., fifteen Freight Cars belonging to the Western and Atlantic Railroad, were sold in Chattanooga, (under an execution obtained in Tennessee,) by the Sheriff of Hamilton county. These cars were purchased by an agent of the Chattanooga and Nashville Road, and immediately transferred to its track. The first car sold, brought one hundred and eighty-five dollars; the others, one hundred and thirty or thirty-five dollars each, or thereabouts. The execution under which the sale was made, was in favor of Toole, Pope & Co., for about the sum of \$2,500. The proceeds not satisfying the execution by several hundred dollars, a further levy on fifteen cars was made; but an arrangement was soon entered into by the State's agent or attorney, for the payment of the balance of the money, when the levy was dismissed. We learn that there are also several other executions held in Tennessee against the State Road, which are unsettled—one in favor of E. C. Greenville, for \$6,600—another in favor of Wm. McTier, for \$10,000—another in favor of Hamilton and James for \$5,400, besides four others, all together amounting to about \$40,000. These judgments obtained in Bradley county, about the 1st of May last, upon an award of arbitrators, to whom a number of claims against the State Road had been formally referred, both parties agreeing to abide by the award.

We do not know the quality and value of the cars sold by the Tennessee Sheriff. Good box cars generally cost from \$600 a \$650. Taking the lowest figure, it has cost the State Road \$9,000 worth of cars to pay in part a debt in execution of \$2,500.—*Macon (Ga.) Messenger.*

States seem to be unfortunate in their management of public works in general. Pennsylvania has just learned that it is her best policy to sell all her public works at a sacrifice. Added to this, the fraudulent sale of a large quantity of the old flat bar rail, which has been taken up from time to time on the Portage railroad, owned by the state, has just been made public, and will probably lead to the discovery of other peculations and mismanagement.

#### RAILROAD DECISION.

The Lafayette and Indianapolis Railroad Company v. Smith. Error Tippecanoe C. C.

GOOKINS, J.—The acts of January 28, 1842, (Laws 1842, p. 3,) and of January 19, 1846, (Laws 1846, p. 149,) gave to the Lafayette and Indianapolis Railroad Company the power to appropriate private property so far as necessary for the construction of their road, and devolved upon the Board of Directors the duty of having the damages assessed, upon application made to them, in the manner provided in the Internal Improvement Law of 1836.

Where a special remedy is given by statute, for the taking of private property in the construction of public works, that remedy only can be adopted. *Reversed* with instructions to dismiss the suit.

R. C. Gregory, R. Jones, and Z. Baird, for the plaintiff.

H. W. Chase, G. S. Orth, and E. H. Brackett, for the defendant.



## STOCK TABLE.

| CORRECTED WEEKLY.                                           |      |         |        |        |
|-------------------------------------------------------------|------|---------|--------|--------|
| GOVERNMENT SECURITIES.                                      |      |         |        |        |
|                                                             | INT. | DCE.    | OFF'D. | ASK'D  |
| U. S. Loan.....                                             | 6    | 1856    | 105    | 105    |
| Do .....                                                    | 6    | 1862    | 112½   | 112    |
| Do .....                                                    | 6    | 1867    | 117½   | 120    |
| Do .....                                                    | 6    | 1868    | 117½   | 120    |
| Do (int. ceased July 1) 5                                   | 5    | 1853    |        | 102    |
| Do Coupons.....                                             |      | 1862    |        | 118    |
| Do .....                                                    | 6    | 1867    |        | 118    |
| Do .....                                                    |      | 1853    |        | 101    |
| STATE.                                                      |      |         |        |        |
| Alabama.....                                                | 5    | ....    |        |        |
| California.....                                             | 7    | 1870    | 87     | 88     |
| Arkansas.....                                               | 6    | ....    |        | 96     |
| Georgia.....                                                | 6    | ....    | 18     | 99     |
| Do .....                                                    | 7    | ....    |        |        |
| Illinois Canal Bonds.....                                   |      | 1860    |        |        |
| Do do registered.....                                       |      | 1860    |        |        |
| Do do .....                                                 |      | 1847    |        |        |
| Do do registered.....                                       |      | 1847    |        |        |
| Do do Internal Imp't. 6                                     | 6    | 1847    | 145    | 106    |
| Do Interest do.....                                         |      | ....    | 64     | 64     |
| Indiana.....                                                | 5    | ....    | 8½     | 84     |
| Do .....                                                    | 2½   | ....    | 5      | 54     |
| Do Canal Loan.....                                          | 6    | ....    |        |        |
| Do do preferred.....                                        | 5    | ....    |        |        |
| Do special preferred.....                                   | 5    | ....    |        |        |
| Kentucky, 30 years.....                                     | 6    | 1871    | 103    |        |
| Do 16 years.....                                            | 6    | ....    | 102    |        |
| Do large bonds.....                                         | 6    | 1869-72 | 100¼   |        |
| Do .....                                                    | 5    | ....    |        |        |
| Louisiana.....                                              | 6    | ....    | 93½    | 95     |
| Michigan.....                                               | 6    | ....    | 97     | 98     |
| Missouri.....                                               | 6    | ....    | 92½    | 93     |
| New York.....                                               | 6    | 1860-61 | 112    | 114    |
| North Carolina.....                                         | 6    | ....    | 97½    | 100    |
| Ohio.....                                                   | 6    | 1856    | 100    |        |
| Do .....                                                    | 6    | 1860    | 105½   | 06     |
| Do .....                                                    | 6    | 1870    | 110    | 11     |
| Do .....                                                    | 6    | 1875    | 112    | 113    |
| Do .....                                                    | 5    | 1855    |        |        |
| Pennsylvania.....                                           | 6    | ....    |        |        |
| Do .....                                                    | 5    | 1870    | 88     | 89     |
| Tennessee, long loan.....                                   | 6    | 1890    | 96     | 97     |
| Do Coupons.....                                             | 5    | ....    | 81     | 83     |
| Virginia Coupons.....                                       | 6    | 1886    | 98½    | 99     |
| CITY SECURITIES.                                            |      |         |        |        |
| Albany.....                                                 | 6    | 1871-81 |        | 99½    |
| Allegheny.....                                              | 6    | 1875-7  |        | 80     |
| Baltimore.....                                              | 6    | 1870-90 | 99½    | 100½   |
| Do .....                                                    | 5    | 1865    |        |        |
| Boston Bonds.....                                           | 4½   | 1860    |        |        |
| Chicago.....                                                | 6    | 1873-7  | 92½    | 95     |
| Cleveland.....                                              | 6    | 1879    | 103½   | 105    |
| Cincinnati.....                                             | 6    | 1860-92 | 96     | 96½    |
| Do .....                                                    | 6    | 1897    |        |        |
| Do .....                                                    | 5    | 1884    |        |        |
| Do W. W.....                                                | 6    | 1865    |        |        |
| Covington.....                                              | 6    | 1857    | 80     | 80     |
| Jeffersonville.....                                         | 6    | 1890    | 70     |        |
| Louisville.....                                             | 6    | 1880    | 86½    | 87     |
| Memphis.....                                                | 6    | 1882    |        | 72½    |
| New York.....                                               | 7    | 1857    | 100½   |        |
| Do .....                                                    | 5    | 1858-00 | 96     | 99     |
| Do .....                                                    | 5    | 1870-5  | 97     | 100    |
| Do .....                                                    | 5    | 1890    |        |        |
| Philadelphia.....                                           | 6    | 1876-90 | 94½    | 95     |
| Pittsburgh.....                                             | 6    | 1869-78 | 81     | 82     |
| Do coupons.....                                             | 6    | 1883    |        |        |
| Racine.....                                                 | 7    | 1873    | 85     | 86     |
| St. Louis.....                                              | 6    | 1870    | 85     | 86     |
| Wheeling.....                                               | 6    | 1873    | 73     | 75     |
| COUNTY BONDS.                                               |      |         |        |        |
| Bourbon, Ky.....                                            | 6    | 1881    | 77½    | 80     |
| Darke, O.....                                               | 7    | ....    |        |        |
| Fairfield, O.....                                           | 7    | 1862    |        |        |
| Fayette, Ky.....                                            | 6    | 1881-3  | 75     | 75     |
| Hancock Co.....                                             | 7    | ....    | 70     | 75     |
| Mason, Ky.....                                              | 6    | 1881    | 73     | 76     |
| McCraken Co. Ky., endorsed by<br>New Orleans and Ohio R. R. |      |         |        |        |
| St. Louis.....                                              | 6    | 1866    | 80     | 85     |
| Do .....                                                    | 7    | 1871    |        |        |
| BANKS.                                                      |      |         |        |        |
| OHIO.                                                       |      |         |        |        |
| American Exchange Bank, N. Y.....                           |      |         | 105½   |        |
| Ohio Life Insurance and Trust Co.....                       |      |         | 98     | 100    |
| Washington Insurance Co.....                                |      |         | 84     | 85     |
| City Insurance.....                                         |      |         | 70     |        |
| Cincinnati Insurance Co.....                                |      |         | 84     |        |
| National Insurance.....                                     |      |         | 76     | 80     |
| KENTUCKY.                                                   |      |         |        |        |
| Bank of Kentucky and Branches.....                          |      |         |        |        |
| Northern, and Branches.....                                 |      |         | 100    |        |
| Southern, and Branches.....                                 |      |         |        |        |
| Bank of Louisville.....                                     |      |         | 93     |        |
| Kentucky Trust Co.....                                      |      |         |        |        |
| Farmers' Bank of Kentucky.....                              |      |         | 105    | 108    |
| Commercial Bank of Kentucky.....                            |      |         |        |        |
| INDIANA.                                                    |      |         |        |        |
| State Bank and Branches.....                                |      |         |        |        |
| TENNESSEE.                                                  |      |         |        |        |
| State Bank and Branches.....                                |      |         |        |        |
| Union.....                                                  |      |         |        |        |
| Planters.....                                               |      |         |        |        |
| LAND WARRANTS.                                              |      |         |        |        |
| 160 acre warrants, per acre.....                            |      |         | Buy'g  | Sell'g |
| 80 acre warrants.....                                       |      |         | \$110  |        |
| 40 acre warrants.....                                       |      |         |        |        |



"Hon. A. J. Harlan, Nathan W. Frazier, Robert Beaty, and David Shunk, have been appointed Solicitors, who will soon wait on the people with stock-books, and who will, we trust, be able to satisfy every man in reference to the appropriation of the funds subscribed to the work. If the amount is speedily made up, (say \$75,000,) the President insures us the road in fifteen months.



### WILL THE SOUTH BEAR DEVELOPING—ALABAMA COAL.

The mineral resources of the states of the South have received so little attention, that it has hardly been known that they possessed any worth the trouble of developing. The revealing of a portion at least of these has been left for the wonderful life-giving agency of railroads. The following from the *Selma Reporter* will show that the South does possess a mineral wealth that only needs energy and means, added to facilities for commerce, to render available.

Among the most important and successful enterprises of our State, says the *Southern Times*, the Alabama Coal Mining Company, located at Selma, has taken a prominent position. It was organized in May last, under a favorable charter from the Legislature. Its present capital is \$200,000. A gratifying fact in this connection is that nearly all the capital stock has been taken by citizens of our own State. Men of sagacity, energy and force have freely invested their means in it as well as devoted their personal activity to its advancement. The whole machinery of the Company comprising all the necessary arrangements for mining and transporting the coal, is in efficient working order, and its business prospects are highly encouraging. A glance at the resources and operations of the Company will be sufficient to show its claims on public attention and confidence. Located in Shelby county, Ala., about fifty miles above Selma, the Coal Fields owned by the Company cover a space of some five thousand acres. Ten or twelve mines have already been opened and they are yielding an abundant supply of valuable coal. The facilities for transportation are as easy and convenient as could be desired. The main trunk of the Alabama and Tennessee Railroad runs near the mines and branch tracks, connecting the coal-fields directly with the great line of the road, are now in process of construction. So soon as these are completed, a prompt and expeditious mode of transporting the coal to Selma will be provided, and a full supply will be kept at the chief depot for distribution throughout the country. To facilitate this distribution the Company has purchased boats and barges, which will be ample to supply the markets on the Alabama river. A most vital point in the successful operations of the Company has thus been effectually secured. Nor only are its modes of conveyance reliable but they are such as will not enhance the value of the coal beyond a price agreeable to purchasers. The experience of the country has demonstrated, that immense quantities of coal can be conveyed over railroads and similar thoroughfares of trade to accessible markets at a low rate, and that thereby the use of this economical and desirable fuel can be put within the reach of moderate means. Owing to these facts, the Company, so soon as its operations are extensively organized, will be able to offer great inducements to consumers. Nothing can be more certain than that all improvements form a system. One thing depends upon another. If coal, iron and other materials can be had by means of railroads, they will soon be followed by the establishment of successful manufactures. The first and most urgent necessity is roads and such roads, too, as the business of this stirring, grasping, pushing age demands. If they are built we can receive and distribute

what trade needs. The present Company has been exceedingly fortunate in obtaining the command of the means of transportation at so early a stage of its history. It is now ready for a large business, and as railroads open through the State, it will be able to extend its operations as widely as may be required.

The rapid and immense increase in the use of coal in this country indicate its importance and value in relation to our manufactures and other interests. No man can estimate the demand which a few years will bring for it. Every step in our progress enlarges its use. It is to-day one of the mightiest auxiliaries of civilization, and just as we widen the dominion of mechanical and other arts, it will become more and more essential to our advancement. The vast coal beds that lie within the hills and mountains of our land—where the sunbeams of distant centuries were imprisoned—were prepared by the hand of God for our use and comfort; and Science with its handmaid, art, has rendered no greater service to the interests of the world than in showing the variety and extent of its useful applications.

We heartily commend this new and energetic enterprise to the attention of our citizens. Its intelligence and earnest activity are worthy of all praise. We sincerely trust, that it will be abundantly successful not only in making money but in stimulating a spirit of improvement, that shall uncover the fortunes hidden beneath the soil of Alabama. If by some magic we could get a good, big coal fire lighted under the brains and hearts of our citizens, we should soon have thought and impulse enough to make us a great and prosperous people.—*Selma Reporter*, Sept. 10.

### PLUNDERING THE STATE OF PENN'A.

Pennsylvania has been somewhat unfortunate in her management of her public works. The following from the *Phil. Inquirer* will probably throw some light on one of the general causes of state failures in making public improvements profitable.

The particulars of a series of most extensive robberies have just transpired at Pittsburgh. The *Gazette* of that city states that early last week a laborer sued his employer, and in the course of the investigation, the parties indulged in high words, when insinuations were thrown out as to a large quantity of railroad iron having been stolen. The magistrate (Symmes) noted the remarks, and afterwards took occasion to question the individual more closely, when he elicited the startling information that a most extensive series of depredations had been and were being perpetrated on the State Portage Road and on the Pennsylvania Central Road. The man intimated that his employer was a ringleader, and that to his knowledge, ONE HUNDRED TONS OF IRON had been stolen and shipped down the river. Esq. Symmes sent for officer Hague, and communicated these facts to him, advising him at the same time to repair to Washington, Pa., and inform Canal Commissioner Hopkins of the developments. Mr. Hague went to Washington, and did so inform Mr. Hopkins, who forwarded instructions to his son, James H. Hopkins, Esq., of Pittsburgh, to proceed legally in the matter, to gather all possible information, and have warrants issued for the arrest of the suspected parties.

Mr. Hague then proceeded to Ebensburg, Pa., where he found the accused and arrested him. Several other individuals were also arrested, on some of whose premises eighty barrels of railroad iron were found.

On Saturday morning they were taken before Mayor Adams. They acknowledged that the iron was theirs, but stoutly maintained that they had purchased it—who from they did not feel disposed to tell. They said they had sold thirty-four barrels on Thursday, but to whom they would not state. They were committed to jail on a charge of grand larceny, in default of \$2000 bail to await a further hearing on Thursday at ten o'clock.

Mayor Adams has received intelligence of the arrest of twenty-six persons, and the intended arrest of sixteen or seventeen more, so that these robberies appear to have been the work of an organized gang. The iron after it was stolen was evidently cut by a machine for that purpose, into short bars so that it could be barrelled. It is supposed that as much as four hundred tons have in this manner been secretly disposed of. Some of this quantity has been taken from the Central Railroad, but mostly it came from the Portage. At \$70 a ton, this would be a loss to the State of \$28,000. As *old iron*, for which they no doubt sold it, it was worth \$40 a ton or \$16,000.

### MEMPHIS AND GRENADA RAILROAD.

President F. White and Secretary Vance being in Grenada, a meeting of the stockholders of said road was called, and on motion of Colonel N. Howard, Jas. Sims was chosen President and Jerry L. Davis, Secretary. After instructive and appropriate remarks by Col. N. Howard, F. White, Samuel Hawkins, Esq., Dr. A. D. Statham, and C. Vance, the following resolutions were adopted:

*Resolved*, That we, the stockholders in the Memphis and Grenada Railroad, at Grenada, are fully sensible of the great efforts made by the stockholders on the northern end of the road, and the present prosperous condition of the enterprise, feel it our sacred duty to pay our quota of stock, and urge upon our fellow-stockholders in this county to do the same; and pledge ourselves to use our best exertions to forward the enterprise to Grenada.

*Resolved*, That we pledge ourselves, as stockholders in the Tennessee and Mississippi Railroad, that we will promptly meet the payments first due, and such other calls as may be made by the first day of March next, as we are satisfied that the road can and will be built if the stockholders do their duty.

### RAILROAD IRON.

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. WALKER & BERRY, Quebec & Kingston, Canada. BERRY & WALKER, Liverpool, England. Kingston, C. W., Sept. 15, 1855.

### MIDDLETON, WALLACE & CO., LITHOGRAPHERS & ENGRAVERS,

No. 115 Walnut St., Cincinnati.

RAILROAD BONDS AND CERTIFICATES OF STOCK  
Beautifully executed and at moderate rates.

Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.

Engraved in all styles and on short notice.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**

**Railroad Depots and Station Houses,**

at current rates.

**L. A. OSTROM,**

Aug. 16. No. 6 West Third Street, Cincinnati.

**Railroad Iron,**

**1,500 TONS,** now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.,** 9 South William street. 8. 1m

New York, Aug. 16th, 1855.

**NOTICE TO CONTRACTORS.**

PROPOSALS will be received at the office of the Henderson and Nashville Railroad company in Madisonville, Kentucky, until the first Monday in October next, for the grubbing, clearing, grading and masonry of said road, or any part thereof. The work will be divided into convenient sections to suit bidders, of not less than half a mile. Proposals will be opened at the city of Henderson, on the said first Monday in October, at which time and place the Board of Directors will meet for that purpose.

E. G. SEBREE, Prest.

CHAS. SEYMOUR, Chief Engineer.

August, 18th, 1855.

5w



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,

North-East Corner Fourth and Walnut Streets, over Ohio Savings Bank,

**CINCINNATI.**

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

*Bank Notes, Drafts, Bills of Exchange,*

**RAILROAD BONDS, & CERTIFICATES**

Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE**

**ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**

**BILLS OF EXCHANGE, CHECKS,**  
Drafts, Certificates of Stock and Deposit, Promissory Notes, Bill and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order of a superior quality.

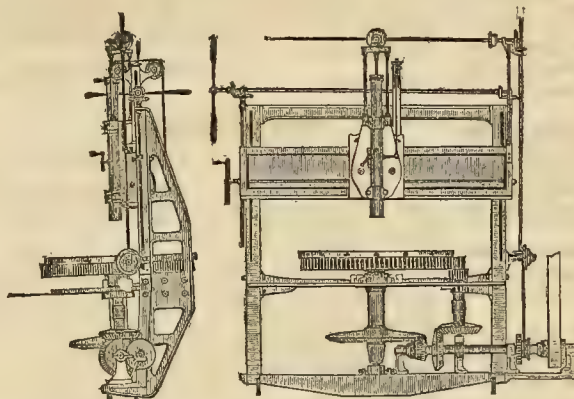
The above office is under the supervision of

**GEORGE T. JONES,**

South-East corner of Main and Fourth Sts., Cin.

**NILES' WORKS.****FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well known class of

**ENGINEERS' & MACHINISTS' TOOLS,**

SHAFTING, GEARING,

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**MATHEMATICAL INSTRUMENTS.**

**T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

**CINCINNATI, O.,**

MANUFACTURERS OF

**Surveyors' & Engineers'**

**Instruments, Theodo-**

**lites, Transits,**

**Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines, 25 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address,

**THATCHER PERKINS,**

**President.**

Also, for sale, two Twenty Horse Power Stationary Engines.

Aug. 9 4t

**THE SCHENCK****MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**

No. 163 GREENWICH STREET,

**NEW-YORK,**

**KEEPS** constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR.

Aug. 9 1y

**D. D. MILLER,**

Manufacturer of

**LOCOMOTIVE, RAILROAD AND HAND**

**LANTERNS,**

190 Water Street, New York.



**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the Record. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

**T. WRIGHTSON & CO.,**  
Railroad Record Office, 167 Walnut St. Cin.

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.  
Madison, Indiana, May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,  
CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action  
**SUCTION & FORCE PUMP**

AND  
**Compound Steam Pumping Engine,**



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-1y

**IRON BOILER FLUES.**  
**PASCAL IRON WORKS.**

**MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**  
1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**  
From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.

**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Granger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly CASH.

R. L. OWEN, Chief Engineer.

Aug. 2, 1855.

aug 2 12w

**THE KENTUCKY  
MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,

President of the Board.

July 26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29. tf.

**Terre Haute & Richmond R. R.****Summer Arrangement.**

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

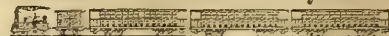
TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street Depot.

HENRY O. AMES, Sup't.  
The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

**CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

Feb. 8-ly

WM. H. SMITH, Conductor.

D M MORROW, Superintendent



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED  
For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

Philadelphia and New York Railroads,  
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York.

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
Baltimore.

je. 8†

TO LOUISVILLE  
IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co.

S. S. POST,  
Chief Engineer and Superintendent.

Omni-buses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-buses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

aug. 2.

STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of STEREOTYPING, including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

1855. New Arrangement, 1855  
COMMENCING MONDAY, JULY 16.LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAI'D WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the E. st; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3½ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30½ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburg in.....    | 14 "      |
| To Philadelphia in..... | 30½ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.  
Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburg, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburg; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburg, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177 front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

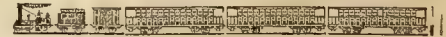
south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## PERU &amp; INDIANAPOLIS R. R.



Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays expected, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent,  
Indianapolis, March 22, 1855.

## Covington and Lexington Railroad.

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.  
Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fairmouth, Cullerville, Boyd's, Berry's, Robinson's, Garret's, Cynthiana, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M.; stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

## RATES OF FARE.

|                             |        |
|-----------------------------|--------|
| Covington to Lexington..... | \$3 00 |
| Covington to Paris.....     | 2 40   |
| Covington to Cynthiana..... | 2 00   |

## FOR THROUGH TICKETS.

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,  
Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices oct. 17\*

CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

## VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and La Fayette for Chicago both morning and evening Trains, and at Chicago for Southe, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,  
Cincinnati, June 12, 1855. Agent.

## W. G. ATKINSON,

Civil Engineer, Surveyor & Draftsman,  
CUMBERLAND, MD.

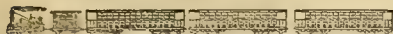
RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared. mar. 1-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNY &amp; PRICK,

Louisville, Ky.

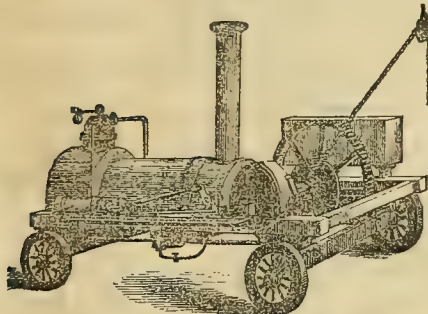
**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

RICHARD NORRIS &amp; SON.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

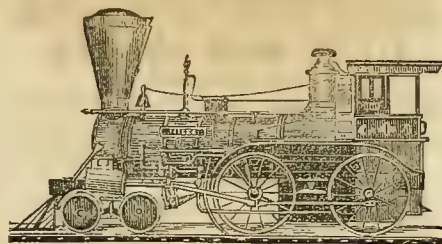
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MRS. DURAND, FELTON and TILTON.

Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.

Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in

**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in Axle Boxes are among the best of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEKBURNE,

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnifying Glasses, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr. Locke's Hand Level always for sale. For construction and use, see R. R. Record of October 20th, 1853. mar1-tf

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

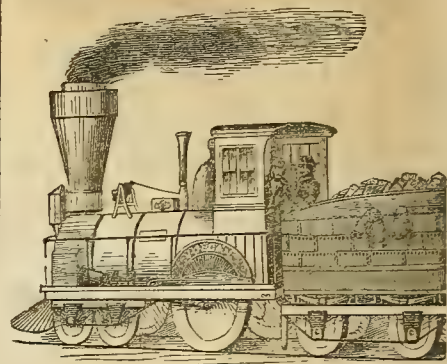
**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and Cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfalls, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Boiling, of superior quality of all sizes. jyl3.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T &amp; F. Wason, Springfield, Massachusetts.

**Railroad Car Findings.****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fit Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS  
Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other articles pertaining to Cars.

ALBERT BRIDGES,

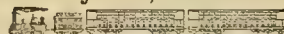
Late Davenport &amp; Bridges, Car Manufacturers.

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

toc6

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

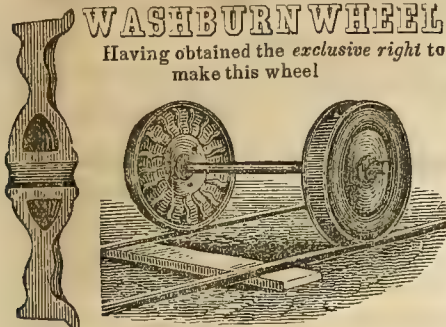
Dayton, Jan. 24th. 1853.

Jan.25+



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address KECK & HUBBARD,  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

DOUGLASS, SMITH & CO.,  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSEL & CO.,

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

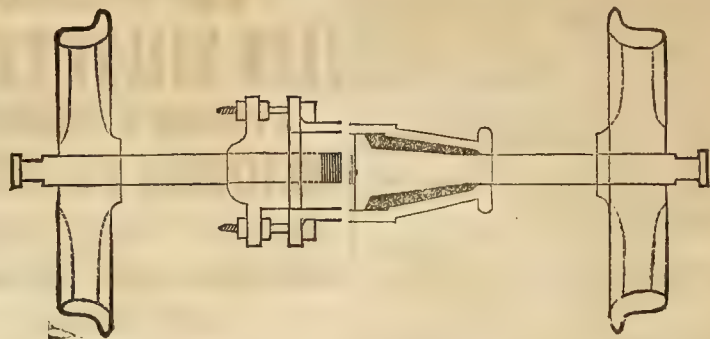
Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16<sup>th</sup> JOSEPH DAVENPORT.

### S. C. THOMSON & CO., MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n.12 NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

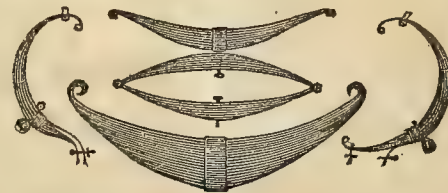
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

SAMUEL L. DENNEY,  
Christiana, Pa.  
Or, to CHRISTIAN UMBLE,  
Gap, Pa.

3y10+

## MCDANIEL & HORNER,

LOCOMOTIVE AND CAR SPRING



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

MCDANIEL & HORNER.

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

NORRIS BROTHERS, Locomotive Builders, Philad.

A. C. GRAY, Prest. New Castle Manuf. Co.

U. WELLS, R. R. Car Manuf. Petersburg, Va.

I. R. TRIMBLE, Supt. Philad. R.R. Co.

May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.

EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.

THOMAS DOUGHERTY, Master Mach. do.

THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.

## DURYEE & FORSYTH'S PATENT

## PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

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## PHILADELPHIA RAILWAY AGENCY.

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PHILADELPHIA.

### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,

Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "

Charles H. Fisher, Esq. "

Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.

Pinckney Huger, Esq., Pres't N.E. R. R. Co. "

Oct. 13-<sup>th</sup>.



## Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,  
90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,

Civil Engineer.  
SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN. R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Baucroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Baucroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES, For Smith's use, and WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES, For Railway Wheels. Railway Axles and Springs, SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

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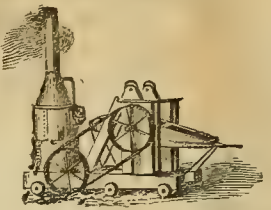
THOMAS PROSSER & SON,

28

PLATT STREET, New York.

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



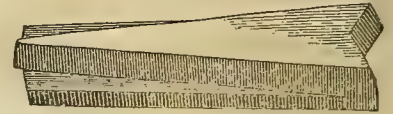
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

nov17+

G. ARTHUR GARDNER,  
Trinity Building, N. York.

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gages

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

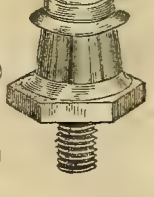
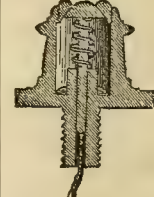
The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,  
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
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Railway Map of the Western States,  
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MAPS OF EVERY DESCRIPTION.



# Railroad Record

EXTRA.

[From the Cincinnati Price Current.

## Annual Statement.

[Concluded.]

### Butter.

The Summer of 1854 being an excessively dry one, the pasturage throughout the country was entirely parched up, and a great deficiency in the amount of butter manufactured, was the result; and high prices prevailed during the entire season, for the cows were so much reduced for want of food during the winter, that when the Spring arrived, with fine pasturage, it required the greater portion of the forepart of the Summer to restore them to ordinary strength; and even up to the month of August, the milk continued weak, and yielded but a comparative small amount of butter. The falling off in the receipts of this article, at this place, has been very heavy, as will be seen by the following imports:

|                    | 1851-2 | 1852-3 | 1853-4 | 1854-5 |
|--------------------|--------|--------|--------|--------|
| Butter, bbls.      | 10,203 | 16,484 | 16,842 | 10,185 |
| Butter firkins, .. | 13,720 | 11,331 | 11,692 | 7,132  |

For prime butter in barrels and firkins, the market opened on the first of September last, at 20c. but gradually declined, and reached 16c. at the close of that month; it again advanced to 20c. on the first of October, but soon declined to 18c. at which the market continued quite steady until the first of January, when it declined to 15c.; but, the supply being inadequate to the demand, it advanced to 18c. during the month of February, and to the unusual rate of 28c. toward the close of March; this rate was obtained from the 26th March to the 11th April, when a reaction took place, and before the close of the month, sales were made at 18c. The receipts, again, becoming very light, prices advanced during the first week of May to 25c. and this rate was obtained up to the 16th of that month; it subsequently declined to 18c., and at the close of the month to 14c. at which rate the market was steady up to the 20th June; it then declined to 12c. and the market was dull at this rate, until the first of August, when it advanced to 13c. and then to 16c. at which the market closed firm, with light receipts and a good demand.

### Coffee.

The consumption of this article has largely increased throughout this country and Europe; and, notwithstanding the crop in Brazil was immensely large in 1853-4, it was taken for the United States and Europe, as quick as it arrived at Rio de Janeiro. The consumption in this country increased so rapidly, that, notwithstanding the large importations, the stocks at the leading importing points, kept down quite low, and, consequently, prices were sustained throughout the entire year, with remarkable steadiness. The highest rate obtained for prime Rio was 12½, and the lowest, which was on the 7th February, 10½, but prices kept down to this rate only for a brief period, and before the close of March had reached 12, the market being quite steady up to the middle of August, at 11½@11¾, but, about the first of September, they advanced to 12½, at which the market closed, quiet, but firm.

The imports of Rio Coffee at this port, for six years, were as follows:

|         | 1849-50 | bags, 67,170 | 1852-3 | bags, 109,138 |
|---------|---------|--------------|--------|---------------|
| 1850-51 | "       | 91,177       | 1853-4 | " 91,425      |
| 1851-52 | "       | 95,732       | 1854-5 | " 114,113     |

The exports in the same years were as follows:

|         | 1849-50 | bags, 22,030 | 1852-3 | bags, 67,122 |
|---------|---------|--------------|--------|--------------|
| 1850-51 | "       | 38,158       | 1853-4 | " 48,634     |
| 1851-52 | "       | 43,654       | 1854-5 | " 42,283     |

The stock of Coffee on the 31st of August, in this market, was larger than it has been for several years; for it will be seen that while the imports largely increased during the last year, as compared with the previous year, the exports decreased.

The following statistics of the trade in Coffee, at Rio Janeiro, will show the extent, and the large increase in the crop in that country, in 1853-4.

Exports of Coffee to the United States from Rio de Janeiro from the 1st of May, 1854, to the 1st of May 1855.

|                          |              |
|--------------------------|--------------|
| To New Orleans.....      | bags 231,299 |
| New York.....            | 216,385      |
| Baltimore.....           | 208,081      |
| Philadelphia.....        | 92,896       |
| Boston.....              | 15,049       |
| Charleston.....          | 8,320        |
| Various other ports..... | 31,544       |

Total to United States in 1854-'55..... 893,774

Do do 1853-'54..... 788,043

Do do 1852-'53..... 1,066,311

Increase of exports from Rio to United States this year compared with 1853 and 1854..... bags 105,731  
Decrease of exports, ditto, 1853-'54..... 172,537  
Total exports of Rio to all parts of the world:  
From 1st May, '54, to 1st May, '55, bags 2,180,044  
From 1st May, '53, to 1st May, '54..... 1,599,928  
From 1st May, '52, to 1st May, '53..... 1,968,625

Estimated stock of Coffee on hand at Rio, 1st May, 1855..... 100,000

The following shows the increase in the consumption of Coffee in the United States:

|                                                                              |         |
|------------------------------------------------------------------------------|---------|
| Sales for consumption in the United States in 1852 and 1853.....             | 966,000 |
| Sales for consumption in the United States in 1853 and 1854.....             | 375,043 |
| Sales for consumption in the United States in 1854 and 1855.....             | 896,274 |
| Increase of sales for consumption this year compared with 1852 and 1853..... | 30,274  |
| Increase of sales for consumption this year compared with 1853 and 1854..... | 121,231 |

### Cheese.

Since the opening of Railway communication between the North-eastern portion of this State and New York, the imports of Cheese at this point have gradually diminished; New York having become our competitor for the trade. The imports increased with great rapidity up to the close of the year 1851-2, when they reached their culminating point, and since then they have been gradually decreasing; the large decrease last year, however, is chiefly owing to the great falling off in the amount manufactured, consequent upon the drought of the Summer of 1854.

The market has been remarkably steady; opening on the first of September at 10c. and this was the current rate up to the 16th of last May, when new Cheese commenced arriving, and prices declined to 8½, and subsequently to 8, which was the current rate up to the first August, when 8½ was obtained, and at this rate the market closed steady, the supplies continuing as they had been during the entire season, quite moderate.

The imports for six years were as follows:

|         | 1849-50, boxes 165,940 | 1852-3, boxes 212,337 |
|---------|------------------------|-----------------------|
| 1850-51 | " 205,444              | 1853-4 " 216,892      |
| 1851-52 | " 241,753              | 1854-5 " 183,379      |

The exports for the corresponding years were as follows:—

|               | boxes.  |
|---------------|---------|
| 1849-'50..... | 86,002  |
| 1850-'51..... | 121,755 |
| 1851-'52..... | 150,689 |
| 1852-'53..... | 143,056 |
| 1853-'54..... | 139,728 |
| 1854-'55..... | 102,352 |

Since the opening of railway communication with the great cheese counties of Ohio, this article reaches this market in good order, and stocks, as in previous years, do not accumulate in the warm months, and the loss by damaged cheese is now comparatively small.

The hateful custom in regard to tares which continues to prevail in this market, and is a positive disgrace to our business character, operates against the cheese business, and enables New York to compete successfully with us in the southern markets. All the cheese put up for the New York market, in Ohio, have to be sold with actual tare for boxes, but for this market a customary tare of ten per cent is allowed, which does not come up to the actual tare by two to four per cent. Our cheese houses ought to abandon this custom at once.

### Candles and Soap.

The manufacture of these articles has increased within the last six years with amazing rapidity; the chief increase being in the manufacture of star candles, which now find a market in all southern countries, embracing the West India Islands, where large quantities of Cincinnati manufactured are consumed each year. The total amount of candles exported in 1849-50 was 69,445 boxes, and in 1853-54, the exports had swelled to the enormous amount of 152,068 boxes; last year, owing to the general depression in trade, the exports fell off somewhat, but the check can be but temporary, and the business will soon again resume its heretofore rapid progress.

The manufacture of Star candles, and of those

articles growing out of it, namely, Lard Oil and Red Oil as we have already stated, is now carried on very extensively. There are seven large establishments now in this city, engaged in the manufacture of Star Candles, which turned out during the last year, 5,575,280 lbs. Candles, amounting to \$1,170,808. These Candles find a market in all warm countries, and in order to give an idea of the extent of the trade, we would say that in addition to the large quantities sold in New Orleans, from whence they are distributed to all the Southern States, to Cuba, Mexico, and South America, shipments of them have been made from this city to Rio de Janeiro, to Valparaiso, to San Francisco, to the Sandwich Islands, and to Liberia and Sierra Leone, in Africa. In the manufacture of these candles, a large quantity of sulphuric acid is used, amounting annually in value to \$50,000, and it keeps two establishments employed in the manufacture of it.

The Red Oil which is made in the manufacture of the Candles, has become a most important article of commerce; and large quantities of it are shipped annually, to the East, and to France and England, where it is used for machinery, and in the woolen factories, and for the manufacture of soap.

The manufacture of Soap has become very extensive, and is rapidly on the increase; nearly seven million pounds was manufactured here during the year. This article is now manufactured from Red Oil and Soda Ash, and is far superior to that made a few years ago, when large quantities of Rosin were used.

The market has been remarkable steady during the whole season. Star candles opened at 24, but soon declined to 22; tallow candles opened at 15 per pound, and these continued to be the current rates up to the 1st July, when prices of the former advanced to 24c., at which rate the market continued firm up to the close of the season; the other kind did not advance, and the year closed at 15c.

Soap ranged from 5½ to 6c. for No. 1 and prime during the year.

The exports for the last six years were as follows:

|             | 1849-50 | 1850-51 | 1851-2  | 1852-3  | 1853-4  | 1854-5  |
|-------------|---------|---------|---------|---------|---------|---------|
| Soap, b'x's | 17,443  | 21,553  | 28,033  | 37,036  | 39,645  | 34,247  |
| Candles "   | 67,447  | 113,412 | 121,727 | 139,799 | 152,068 | 133,131 |

### Flour.

The price of this article, during the year has been enormously high—far above any rate ever obtained for it since it became an article of commerce in the western country. The large foreign demand for breadstuffs, in the Fall and Winter of 1853-4, completely drained the country of all the surplus stocks of Wheat and Flour, and in the Spring of 1854 it was first developed that the supply had been entirely exhausted. The Wheat crop of 1854 having failed, except in a few localities, not only left the Union without any surplus to export, but actually left it without an adequate supply for home consumption, and the result was that prices reached an unprecedented point, before the result of the harvest of 1854 was satisfactorily ascertained. As soon as new Flour came into market, prices declined from \$8.25, the current rate on the 1st of September, to \$6.70, then to \$6.45 and, finally, on the 4th of October, to \$6.50. About this time, the fact that the Wheat crop had failed, became generally known, and prices immediately advanced to \$7.00, then to \$7.15, and suddenly, during the week preceeding the 1st of November, to \$8.00. Prices gradually fell back again, until they reached \$7.50, on the 6th of December, and ranged from \$7.50 to \$7.60, during that month; but, in January a decided improvement took place, the opening rates being \$7.75, and the closing rate \$7.90. In the first week of February prices went up to \$8.00, and at the close of the month had reached \$8.30; during the first week of March, \$8.45 was obtained, but, the following week, they fell back to \$8.25, and the subsequent week to \$8.20; but the arrivals being exceedingly light during the last week of March, prices again assumed a strong upward tendency, and, on the 4th of April, reached \$8.80; and during the week following advanced over one dollar per bbl, closing at \$9.85, and some sales were made as high as \$10.00, being the highest point reached during the year, and this was about the middle of April. These high rates induced shipments from various points on the Illinois River, and the supply being better, prices gradually declined to \$9.60 in the first week of May, and finally, to \$9.10 at the close of the month, and to \$9.00 in the first week of June. The market then became unsettled, and prices advanced to \$9.50, then again declined to \$9.30, and at the close of June, reached \$8.75. The first three weeks of July prices ranged from \$8.25 to \$8.50.



The first sale of new Flour is reported on the 19th of July at \$7.25, and on the 23d it had become quite plenty, and prices declined to \$6.75 for new. About this time an active demand from the Lake towns arose, and the weather being wet, rendering it impossible to prepare new wheat for market, prices rapidly advanced, reaching on the 1st of August \$7.75; but with increased supplies, soon declined to \$7.00, and closed on the 30th of August at \$6.00 for superfine.

The following table shows the prices of Superfine Flour, in this Market at the close of each week during the year:

| DATE.    | Price. | DATE.   | Price. | DATE.    | Price. | DATE.   | Price. |
|----------|--------|---------|--------|----------|--------|---------|--------|
| Sept. 13 | 8.25   | Dec. 13 | 7.60   | March 14 | 8.25   | June 13 | 9.50   |
| " 20     | 6.70   | " 20    | 7.50   | " 21     | 8.20   | " 20    | 9.30   |
| " 27     | 6.65   | " 27    | 7.60   | " 28     | 8.30   | " 27    | 8.75   |
| Oct. 4   | 6.50   | Jan. 3  | 7.75   | April 4  | 8.80   | July 4  | 8.50   |
| " 11     | 7.00   | " 10    | 7.70   | " 11     | 9.85   | " 11    | 8.25   |
| " 18     | 6.95   | " 17    | 7.70   | " 18     | 9.85   | " 18    | 8.50   |
| " 25     | 7.15   | " 24    | 7.85   | " 25     | 9.60   | " 25    | 6.80   |
| Nov. 1   | 8.00   | " 31    | 7.90   | May 2    | 9.50   | Aug. 1  | 7.75   |
| " 8      | 7.90   | Feb. 7  | 8.00   | " 9      | 9.40   | " 8     | 7.00   |
| " 15     | 7.85   | " 14    | 8.15   | " 16     | 9.50   | " 15    | 7.00   |
| " 22     | 7.70   | " 21    | 8.25   | " 23     | 9.15   | " 22    | 6.90   |
| " 29     | 7.70   | " 28    | 8.30   | " 30     | 9.10   | " 29    | 6.00   |
| Dec. 6   | 7.50   | Mar. 7  | 8.45   | June 6   | 9.00   | Sept. 4 | 5.85   |

The following table shows the imports and exports of Flour, at this port for six years, ending on the 31st August each year.

| IMPORTS. |       | Bbls.   |
|----------|-------|---------|
| 1849-'50 | ..... | 231,859 |
| 1850-'51 | ..... | 482,772 |
| 1851-'52 | ..... | 511,042 |
| 1852-'53 | ..... | 449,089 |
| 1853-'54 | ..... | 427,464 |
| 1854-'55 | ..... | 342,762 |
| EXPORTS. |       | Bbls.   |
| 1849-'50 | ..... | 98,908  |
| 1850-'51 | ..... | 390,131 |
| 1851-'52 | ..... | 408,211 |
| 1852-'53 | ..... | 312,841 |
| 1853-'54 | ..... | 332,778 |
| 1854-'55 | ..... | 199,276 |

The cause of the great falling off in the trade last year, it is hardly necessary to say, was the failure of the wheat crop. The imports last year show one important fact; namely, that 143,496 bbls were left for home consumption, showing that the city consumption has been about 2800 bbls each week. This is less than it would have been, were prices down to the usual average rate; as, under ordinary circumstances, the consumption would have been fully one fourth larger, making it 3500 bbls a week. It must be recollected, however, that a district reaching fully five miles beyond the corporate limits of the city, was depending upon this market for its flour during the year, which in ordinary years is not the case; but by allowing for what reached the city by wagons, and which did not come into the exports, the city consumption may safely be set down now at five hundred bbls a day. In no other year, since the records of our commerce have been kept, could, and probably in no other for some time to come, can this calculation be made with as much accuracy as during the past year, because in ordinary years a large quantity of flour comes into the city by wagons, and which is not included in our imports; but last year none of consequence arrived by wagons, because there was none of consequence to come within a distance of the city, from whence it could or would be brought by this mode of conveyance. Assuming the population to be 175,000, this would show the consumption to be a little over nine ounces per day for each individual, and is probably the actual amount consumed.

#### Corn.

At the opening of the year a great diversity of opinion existed in regard to the extent of the failure in the crop of Indian corn, in this and the adjoining States. The result shows that in Kentucky the failure was decided and general, and that the yield was not much over one fourth an average. In Ohio the crop was probably one half an average. In Indiana five eighths to three fourths an average, and in Illinois fully three fourths of an average crop. In Iowa and Wisconsin a fair crop was realized, but in Missouri the failure was as bad as in Kentucky. Large quantities had to be purchased by the Kentucky farmers, to feed their stock during last spring and the early part of the summer, until the grass grew; and a large quantity was purchased in this market and at Louisville for that purpose. Prices kept up to a high point during the whole year, the lowest point reached being 55 and the highest 80.

The average price for each month given in another place, indicates the course of prices during the year.

The following figures show the imports and exports during the last six years.

| IMPORTS. |       | Bush.   |
|----------|-------|---------|
| 1849-'50 | ..... | 649,227 |
| 1850-'51 | ..... | 483,195 |
| 1851-'52 | ..... | 653,788 |
| 1852-'53 | ..... | 723,334 |
| 1853-'54 | ..... | 745,455 |
| 1854-'55 | ..... | 845,579 |
| EXPORTS. |       | Sacks.  |
| 1849-'50 | ..... | 57,248  |
| 1850-'51 | ..... | 20,137  |
| 1851-'52 | ..... | 51,231  |
| 1852-'53 | ..... | 59,132  |
| 1853-'54 | ..... | 39,426  |
| 1854-'55 | ..... | 64,344  |

It will be seen that both the imports and exports were larger last year than they were any year previous; notwithstanding the failure, which is owing to the fact that the demand from Kentucky and from various points above, induced large shipments from Northern Indiana to this market, where higher prices were obtained than elsewhere. The indications are that the present growing crop will be the largest ever gathered.

#### Wheat.

The prices of and state of the market for flour, sufficiently indicates the course of the market; for this article, and therefore, no extended comments are necessary. The lowest price paid for the old crop was \$1.25, and the highest \$2; but the new crop opened at \$1.10 and prices ranged from this up to \$1.25 until the close of the season. The wet weather, which prevailed during the wheat harvest, in the northern portion of the Union, has done great injury to the grain by causing it to sprout, and in the northern portion of Indiana, the whole state of Michigan, the northern portion of Ohio, Pennsylvania, and New York, the wheat crop has been generally injured, and from four to five millions bushels of it in these sections, so badly, that it is unfit to make merchantable flour; but in the southern portions of Indiana, all Illinois and Missouri, the southern portion of Ohio, and all Kentucky and Tennessee the crop was secured before the wet weather set in; and on the whole there is, beyond the possibility of a doubt, more sound wheat in the country, the product of last harvest, by one-fifth, than there ever was in any previous year. The grain is good and well-filled, and the yield per acre is far above the average.

The receipts of wheat at this port, since harvest, have been 250,000 bushels, and the exports 170,000 bushels; the greater portion of which went to the Lake towns—Sandusky, Cleveland, and Buffalo; and contracts have been made within the week by millers from Rochester, New York, for 20,000 bushels Kentucky wheat, for the purpose of making prime Genesee flour, the wheat in the valley of the Genesee having all been more or less injured.

#### Rye.

In common with other kinds of grain, this crop failed in 1854, and consequently prices were unusually high during the season; the lowest price was 80, which was the rate at which it opened in September, but it soon advanced to 1.05, and ranged from \$1 to \$1.15 up to the middle of April, when it advanced to \$1.25 and reached \$1.50 on the first of May; this rate was not long sustained, and prices gradually declined until they reached \$1.20 about the middle of July. The new crop came into market towards the close of the month, and prices declined at once to 80, and the downward tendency continued until it reached 60. The crop is said to be an average one.

#### Barley.

This cereal ruled, during the year, pretty much as Rye, and prices were nearly the same. The crop of 1854 failed. This year's crop is barely an average one.

#### Oats.

The crop of 1854 failed, and was not over three-fourths of an average one, and high rates were obtained during the season up to the month of August, when the new crop reached the market, prices declined from 50 to 25c. per bushel, within ten days, but afterwards advanced, and the market closed at 30c.

#### Hay.

This crop also failed in 1854, and was not over half an average. Prime Timothy in bales sold from the wharf, in September, at \$14 per ton, and gradually declined until it reached \$12 in December, and fluctuated from this rate to \$15, until the middle of March, when the supplies fell off and prices assumed a strong upward tendency; and on the second of May the current rate was \$21. Pri-

ces fell back from this to \$18; again advanced to \$21; this was about the first week of July, but soon after the market became dull, and prices gradually declined, until prime sold at \$11.50. It has been clearly ascertained that a large portion of this year's crop has been damaged; and, although the crop previous to its being cut promised to be abundant, yet the amount of sound Hay is, beyond a doubt, not over half an average; and such will command good prices.

#### Hemp.

Since the commencement of the war in Europe, this article has advanced to very high prices, and instead of 80 to \$90 per ton, which used to be the current rates, prices have ranged from \$1.25 to \$1.60. This is not a hemp market, properly speaking, yet a large quantity is sold here, and the amount needed by our manufacturers is equal to 6000 bales per annum. In September, prices opened at \$150 per ton for prime Missouri and Kentucky, advanced to \$155 about the middle of that month, and to \$160 towards the latter part of October—this was the current rate until the 17th January when prices suddenly declined to \$135, and to \$125 in the latter part of the month, fluctuating between this rate and \$130, until the last week of April, when it declined to \$115. In June it declined to \$110, but after this steadily advanced until it reached \$165 at the close of August. The crop in Kentucky in 1854 failed, but in Missouri it was a fair one.

The following are the imports and exports at this port for six years:

| IMPORTS. |       | bales. |
|----------|-------|--------|
| 1849-'50 | ..... | 12,062 |
| 1850-'51 | ..... | 13,254 |
| 1851-'52 | ..... | 18,334 |
| 1852-'53 | ..... | 20,079 |
| 1853-'54 | ..... | 11,759 |
| 1854-'55 | ..... | 8,671  |
| EXPORTS. |       | bales. |
| 1849-'50 | ..... | 1,164  |
| 1850-'51 | ..... | 3,112  |
| 1851-'52 | ..... | 3,617  |
| 1852-'53 | ..... | 3,086  |
| 1853-'54 | ..... | 6,190  |
| 1854-'55 | ..... | 2,918  |

#### Iron.

Owing to the extraordinary high rates which were obtained for pig-iron during the years 1853-'54, and the immense profits realized by manufacturers, several new furnaces were built, and the manufacture of the article largely increased; but the extraordinary reaction and reverses which the trade experienced in England, where speculation in Iron had become "epidemic" in 1853, soon reached this country, and the decline was as rapid and as large as had been the advance; and the result was that numerous and heavy failures took place. The market for pig-iron, Ohio river Hot Blast, opened in September at \$42, at which it continued steady until the 18th October, when it declined to \$40; about the middle of November it declined to \$38; on the first of December to \$37; on the first of January to \$35, and on the first of February to \$28; but before the close of the month it advanced to \$30, at which the market continued steady until the close of April, when it advanced to \$31, and at this rate the market was again steady up to the middle of August, when it advanced to \$32, at which the market closed buoyant, holders asking \$35.

The following tables show the imports and exports of pig-iron and blooms for six years:

| IMPORTS.      |             |         |
|---------------|-------------|---------|
|               | Pig-iron.   | Blooms. |
| 1849-'50..... | 17,211 tons | 2,545   |
| 1850-'51..... | 16,110      | 2,727   |
| 1851-'52..... | 22,605      | 4,038   |
| 1852-'53..... | 30,179      | 3,928   |
| 1853-'54..... | 41,807      | 4,836   |
| 1854-'55..... | 26,613      | 4,599   |

#### Molasses.

During the seasons of 1852-'53 and 1853-'54, the importations of this article from Louisiana swelled to a large amount—far above the wants of the trade, and the result was that heavy stocks remained in the hands of our importers from year to year, and heavy losses were sustained by them. The stock of old molasses in this city on the first of September 1854, was not less than 26,000 bbls, and prices reached an extremely low point, so low that several thousand barrels were taken at 15@17c. for distillation, being the first time that this article had been used, in this city, for that purpose. This reduced the stock considerably, and when the new crop arrived, the stock of old did not exceed 4000 barrels,



It is proper to remark in this connection that a large portion of that sold for distilling was inferior, and the price obtained for it was two to three cents below the current market rates, from good and prime. Owing to the low stage of water in the Ohio river, the new crop did not come forward until fully six weeks later than usual; the first lot having arrived on the 27th December, and a few barrels were re-tailed at 24c., though old was offered freely at 20 without finding buyers, except in small lots to supply immediate wants, and it was not until up to the middle of January that the market rate for new crop became fully established, when some large sales were made at 22 to arrive, and 23c for present delivery. About the first of February prices commenced advancing in New Orleans, and it then became apparent that the crop in Louisiana would be a short one, and prices assumed a decided upward tendency in this market, and continued steadily to advance until they reached 40c. at the close of August. The heavy stocks of old on hand at the commencement of the year, to which we have before referred, together with the unsettled and unsatisfactory state of commercial and financial matters, made our importing houses excessively cautious in making arrangements for their importations, and prevented many from importing any, who would have done so under more favorable circumstances. This resulted in a large falling off in the amount imported, as compared with other years, but the profits realized have been enormously large, and many of our importing houses are now realizing 40 to 42c. for molasses, the prime cost of which in their cellars, does not exceed 22c. per gallon.

The following are the imports and exports for six years:

|               | IMPORTS.     | EXPORTS. |
|---------------|--------------|----------|
| 1849-'50..... | 54,003 bbls. | 25,878   |
| 1850-'51..... | 61,490 "     | 25,098   |
| 1851-'52..... | 93,132 "     | 48,866   |
| 1852-'53..... | 115,112 "    | 65,056   |
| 1853-'54..... | 86,430 "     | 63,381   |
| 1854-'55..... | 56,237 "     | 45,150   |

The following table shows the price of New Orleans Molasses in this market, at the close of each week, during the year:

| DATE.   | Price. | DATE.   | Price. | DATE.    | Price. | DATE.   | Price. |
|---------|--------|---------|--------|----------|--------|---------|--------|
| Sept. 6 | 20     | Dec. 13 | 20     | March 14 | 25     | June 13 | 34     |
| " 13    | 21     | " 20    | 20     | " 21     | 26     | " 20    | 34     |
| " 20    | 18     | " 27    | 21     | " 28     | 27     | " 27    | 34     |
| " 27    | 18 1/2 | Jan. 3  | 21     | April 4  | 32     | July 4  | 36     |
| Oct. 4  | 20     | " 10    | 21     | " 11     | 32     | " 11    | 36     |
| " 11    | 20     | " 17    | 22     | " 18     | 33     | " 18    | 37     |
| " 18    | 20     | " 24    | 22     | " 25     | 23     | " 25    | 38     |
| " 25    | 20     | " 31    | 23     | May 2    | 34     | Aug. 1  | 38     |
| Nov. 1  | 20     | Feb. 7  | 23     | " 9      | 34     | " 8     | 38     |
| " 8     | 20     | " 14    | 23     | " 16     | 34     | " 15    | 38     |
| " 15    | 20     | " 21    | 24     | " 33     | 35     | " 22    | 38     |
| " 22    | 20     | " 28    | 24     | " 30     | 35     | " 29    | 40     |
| " 29    | 20     | Mar. 7  | 25     | June 6   | 35     |         |        |
| Dec. 6  | 20     |         |        |          |        |         |        |

#### Linseed, Oil, and Flaxseed.

In the season of 1853-'54 a very general and strong speculative movement arose in the leading markets of the country for Linseed oil, growing out of the European war, by which it was supposed the supply of flaxseed from Russia would be cut off, and consequently the supply of the article greatly diminished. Although the anticipations of speculators seemed to be well grounded, they were not realized, and heavy losses were the consequences. The crop of Flax, owing to the drought in 1854, failed in the West, and the yield of seed was not over half an average; but dealers in the Oil had been so badly deceived the previous year, that no speculative demand could be induced under almost any circumstances, and the market, consequently, continued very steady during the season up to the month of March, when the supply became light, and it became absolutely certain that it would not be adequate to the demand for consumption. During the months of March, April, and May prices steadily advanced, and on the 1st of June had reached the unusual high rate of \$1.10; this rate was obtained during the last week of May and two first weeks of June, when under the influence of some importations from the East, and a very limited demand, prices commenced declining, first to \$1.05, and then to \$1.00, and on the 18th July to 95 c. Under the influence of favorable advices from the East, and a better demand, prices again took an upward turn, and advanced to \$1.10 on the 8th of August; but though this rate was attained the subsequent week, the market was dull, new Oil having commenced to arrive, and the market closed heavy with the end of August at \$1.00. The supply during the last six months of the year was very light, and barely enough to meet the pressing wants of dealers, and the market closed entirely bare.

The new crop of Flaxseed is an average one, but the quality is very poor, it having been seriously injured by the wet weather, and it is computed that fully one fourth of the seed is so badly injured, that it will yield little oil.

The imports of Oil for six years were as follows:

|               | Bbls.  |
|---------------|--------|
| 1849-'50..... | 5,049  |
| 1850-'51..... | 6,764  |
| 1851-'52..... | 8,305  |
| 1852-'53..... | 10,507 |
| 1853-'54..... | 11,228 |
| 1854-'55..... | 8,384  |

The imports of Flaxseed were as follows:

|               | Bush.  |
|---------------|--------|
| 1849-'50..... | 15,570 |
| 1850-'51..... | 20,319 |
| 1851-'52..... | 48,074 |
| 1852-'53..... | 51,752 |
| 1853-'54..... | 40,850 |
| 1854-'55..... | 24,189 |

#### Lumber.

Owing to the low stage of water in the Allegheny during the fall of 1854, the usual supplies of Pine, which are rafted down in the fall, could not come out, and the result is that the amount which has reached this point during the year, is fully twenty-five per cent less than in the previous year; but owing to the depression in business, and the consequent inactivity in building, the supply has been equal to the wants of the city.

This is not, properly speaking, a lumber market; that is, it is not a distributing point for the article. All the Lumber brought to this market and sold here, with the exception of a comparatively small amount, which is taken by the adjoining towns, is used here for building purposes, by our numerous and extensive Furniture factories, and for Steamboat building, so that the amount which arrives here each year, indicates the progress as well as the extent of the various departments of our manufactures in which it is used.

The prices of sawed Pine lumber, at the wharves, rated for the best lots, measured on one line, at \$13.50 per M, and for that measured on two lines, \$12 for common, and \$24 for clear, per M; being 10 to 15 per cent below the last year's prices.

The receipts of sawed Pine lumber, by the river during the year, have been about fifty millions feet, which is fully ten millions less than the average receipts of the previous years.

The receipts of Poplar, sawed in joist, boards, and scantling, have been, in round numbers, twenty-five millions feet, all of which is consumed by our manufacturers and for building purposes.

There are ten Saw mills in this city and vicinity, which run from three to ten saws each, all the year; at these mills there has been cut, during the past year, about forty millions feet of Poplar, Ash, Oak, Cherry, Walnut, and Yellow pine, all for the city use, making the total amount of Lumber used in this city, one hundred and fifteen millions feet, worth at \$15 per M. \$1,125,000.

#### Sugar.

At the close of the last commercial year the stock of Louisiana sugar in this market, was about 13,000 hhds; but the low stage of water in the Ohio and Mississippi rivers prevented the importation of any of the new crop, until the season was very far advanced; and though the stock on the 1st of September was large, it was reduced to 1,000 hhds, when new sugar commenced to arrive. The demand being good, prices advanced some during the fall months. The first lot of new sugar was received on the 4th December, and small sales were made at 5 1/2; but the river being very low and freights enormously high, the receipts of new sugar during the month were light, and it was not until the latter part of January that the receipts were what might be called large, when prices declined to 4 1/2 for fair, but soon assumed an upward tendency, consequent upon a short crop in Louisiana, and an active demand from the Eastern seaboard, and from the West, at New Orleans. On through the following months prices gradually advanced, until the close of the year, when fair sugar reached the unusual high rate of 8c, being the highest price paid for the article for several years. The imports have fallen off during the year about 18,000 hhds, owing to the same causes we have given in connection with our remarks on Molasses; but the sequel has shown that our trade needed the full amount imported the previous year. The crop in Louisiana, in 1854, was one hundred thousand hogheads less than in the year 1853; but the crop that year was

the largest ever gathered in the State, and the crop of 1854, though less than that of 1853, was larger than that of any previous year. The statistics of the country show that the increase in the consumption of sugar is very rapid, and that the increase in the production of it must be in greater ratio than it has been in past years, in order to keep up with the increase in the consumption.

The following table shows the imports and exports of Louisiana Sugar at this port, for six years.

|               | IMPORTS. | EXPORTS. |
|---------------|----------|----------|
|               | hhds.    | hhds.    |
| 1849-'50..... | 26,760   | 9,650    |
| 1850-'51..... | 29,808   | 13,000   |
| 1851-'52..... | 39,224   | 20,360   |
| 1852-'53..... | 49,229   | 31,615   |
| 1853-'54..... | 64,461   | 44,119   |
| 1854-'55..... | 46,953   | 32,432   |

The following are the stocks of Sugar, in the leading markets, on the 1st of September, 1855.

|                        | PHILADELPHIA.            |
|------------------------|--------------------------|
| Sept. 1st, 1855.       | Against Sept. 1st, 1854. |
| New Orleans 1482 hhds. | New Orleans 2847 hhds.   |
| Cuba..... 2898 "       | Cuba..... 1356 "         |
| Porto Rico... 350 "    | Porto Rico.. 302 "       |
| Barbadoes.... "        |                          |
|                        |                          |
| 4730 hhds.             | 4505 hhds.               |
| 2437 boxes.            | 1450 boxes.              |
| 2100 bags.             | .... bags.               |

|                       | BOSTON. |
|-----------------------|---------|
|                       | 1855.   |
| Cuba browns, boxes..  | 5,704   |
| Cuba whites, boxes... | 701     |
| Cuba Muscovado, hhds  | 692     |
| Manilla, bags.....    | 11,895  |

|                   | NEW YORK. |
|-------------------|-----------|
|                   | 1853.     |
| Cuba..... hhds    | 31,547    |
| Porto Rico.....   | 6,013     |
| New Orleans....   | 7,396     |
| Texas.....        | 84        |
| St. Croix.....    | 361       |
|                   | 1854.     |
|                   | 1855.     |
| Total.....        | 45,401    |
| Cuba..... boxes   | 12,370    |
| Manilla..... bags | 18,971    |
|                   | 14,714    |

|  |        |        |
|--|--------|--------|
|  | 27,484 | 20,469 |
|  | 13,303 | 22,280 |
|  | 14,714 |        |

NEW ORLEANS, including the STATE OF LOUISIANA.  
10,000 Hogheads.

|                      | CINCINNATI. |
|----------------------|-------------|
|                      | 1855.       |
| New Orleans.... hhds | 9,360       |
|                      | 12,600      |

The following table shows the price of fair New Orleans Sugar in this market, at the end of each week, during the year:

| DATE.   | PRICE. | DATE.   | PRICE. | DATE.   | PRICE. | DATE.  | PRICE. |
|---------|--------|---------|--------|---------|--------|--------|--------|
| Sept. 6 | 4 1/4  | Dec. 6  | 5 1/4  | March 7 | 4 1/2  | June 6 | 6 1/2  |
| " 13    | 4 1/4  | " 13    | 5 1/4  | " 14    | 5 1/4  | " 13   | 6 1/2  |
| " 20    | 4 1/4  | " 20    | 5 1/4  | " 21    | 5 1/4  | " 20   | 6 1/2  |
| " 27    | 4 1/4  | " 27    | 5 1/4  | " 28    | 5 1/4  | " 27   | 6 1/2  |
| Oct. 4  | 4 1/2  | Jan. 3  | 5 1/2  | April 4 | 5 1/2  | July 4 | 4 1/2  |
| " 11    | 5 1/2  | " 10    | 5 1/2  | " 11    | 5 1/2  | " 11   | 6 1/2  |
| " 18    | 5 1/2  | " 17    | 5 1/2  | " 18    | 5 1/2  | " 18   | 6 1/2  |
| " 25    | 5 1/2  | " 24    | 5 1/2  | " 25    | 5 1/2  | " 25   | 6 1/2  |
| Nov. 1  | 5 1/2  | " 31    | 4 1/2  | May 2   | 6 1/2  | Aug. 1 | 1 1/2  |
| " 8     | 5 1/2  | Febr. 7 | 4 1/2  | " 9     | 6 1/2  | " 8    | 6 1/2  |
| " 15    | 5 1/2  | " 14    | 4 1/2  | " 16    | 6 1/2  | " 15   | 7      |
| " 22    | 5 1/2  | " 21    | 4 1/2  | " 23    | 6 1/2  | " 22   | 7 1/2  |
| " 29    | 5 1/2  | " 28    | 4 1/2  | " 30    | 6 1/2  | " 29   | 8      |

The Cincinnati Sugar Refinery, is now doing a large business, and which is rapidly on the increase. During the last year over nine millions pounds of raw Sugars have been refined at this establishment, notwithstanding though it has been in existence only about three years, and there is no doubt that, within the next five years, it will supply a great portion of the refined Sugars used in the valley of the Ohio.

#### Coal.

The increase in the consumption of this article, in this City and vicinity, is rapid and steady. Last year the total amount yarded was a little over eight millions bushels, and this year, it exceeds ten millions bushels. Of this amount the Gas Works consume 300,000 bushels, and the Water Works 600,000 bushels. Fully two-thirds of the Coal consumed here is used by our Manufacturers, including the Gas Works and the Water Works. The use of Coal instead of wood, for domestic purposes, is increasing very rapidly, and there is little doubt but



that in a few years hence, it will have superseded the use of wood altogether, because while the latter must increase in price, the increased facilities of bringing the former to market, and the inexhaustible supplies of it to be had at convenient distances from the City, will prevent any advance and will always keep it as it is now, the cheapest fuel for domestic as well as manufacturing purposes.

The total amount of Coal received at this port in 1850 was 4,500,000 bushels. This year it was 10,350,000 bushels.

### Hogs and Cattle.

The market for Hogs opened last November, under apparently unfavorable circumstances. The pressure in money matters was felt more keenly, perhaps, in this department, than in any other; and this, in connection with low prices that prevailed for provisions, depressed the views of buyers, and although prices advanced as the season progressed, the market throughout was measurably devoid of activity. To the causes referred to, which tended to depress the trade, may also be added the impression that the crop would prove as large as that of the preceding year, which furnished sufficient for the wants of consumers, and left a heavy surplus to enter into the supplies of the new year. In our prospective remarks, presented in the last annual report, we took occasion to state that it was very difficult to determine as to the result of the crop, as the extent of supplies would depend very much on the prices to be realized. The number of Stock hogs in the country was larger than in any former year; but the high price of Corn, and the deficiency in the growing crop of that staple, were expected to cut short the hog crop. Low prices for hogs would certainly produce this result, but a prospect for realizing full prices would increase supplies. The prospect for prices was at the commencement of the season most discouraging. Some packers confidently predicted that rates would recede to \$3, and holders found it exceedingly difficult to realize on hogs for some time after packing commenced, except at losing prices. This paralyzed the efforts of feeders, and the Corn crop having proved a failure, and prices for the article ruling high, stock hogs were neglected, and a short crop was the consequence—short both in number and weight. The falling off in number in the whole West was 349,403 head, and in weight equal to 113,663 head; together 483,066.

In Iowa, Illinois, Missouri, and Wisconsin, the hogs averaged about the same as last year. In some portions there was a falling off, but in others an increase, thus bringing up the average.

In our statement made at the close of the season of 1853-'54 we estimated the average weight of the Hogs packed in Ohio, Indiana, Kentucky, and Tennessee at 203 lbs. Deducting eight per cent from this, the average for the past season would be 192½ lbs. In other States the average last year was 218 lbs, and this year we estimate it at the same. Taking these figures as the average, the crop reduced to pounds compares as follows:

|                                             | 1853-'54.   | 1854-'55.   |
|---------------------------------------------|-------------|-------------|
| Ohio, Kentucky, Indiana, and Tennessee..... | 391,929,200 | 273,502,845 |
| Other States.....                           | 128,516,696 | 153,486,980 |

520,445,996 426,989,825

Showing a deficiency of 103,456,171 pounds; being a trifle over twenty per cent. The increase in pounds last year over the preceding year's crop was twenty-two and a half per cent. The product this season is therefore twenty per cent less than that of 1853-'54, and two and a half per cent greater than that of 1852-'53.

The number packed in this city was 355,786, against 431,000, the previous season, showing that the falling off here was relatively smaller than throughout the West. The following figures show the number packed at this point for a number of years:

| YEARS.    | No.     | YEARS.    | No.     |
|-----------|---------|-----------|---------|
| 1833..... | 85,000  | 1845..... | 196,000 |
| 1834..... | 123,000 | 1846..... | 305,000 |
| 1835..... | 162,000 | 1847..... | 250,000 |
| 1836..... | 123,000 | 1848..... | 475,000 |
| 1837..... | 103,000 | 1849..... | 410,000 |
| 1838..... | 182,000 | 1850..... | 393,000 |
| 1839..... | 190,000 | 1851..... | 324,000 |
| 1840..... | 95,000  | 1852..... | 352,000 |
| 1841..... | 160,000 | 1853..... | 361,000 |
| 1842..... | 220,000 | 1854..... | 431,000 |
| 1843..... | 250,000 | 1855..... | 355,786 |
| 1844..... | 240,000 |           |         |

A comparison of prices at the close of each week of the packing season, we now present:

### WEEKLY PRICES.

| Week end 'g             | 1854-5 | 1853-4 | 1852-3  | 1851-2  | 1850-1  | 1849-50 |
|-------------------------|--------|--------|---------|---------|---------|---------|
| November 10             | \$4.00 | \$4.95 | .....   | .....   | .....   | .....   |
| " 17                    | 3 62½  | 4 52½  | 5 37    | .....   | 2 75    | .....   |
| " 24                    | 4 00   | 4 48   | 6 00    | .....   | 3 62    | 2 70    |
| December 1              | 4 30   | 4 11½  | 6 25    | 4 52    | 4 00    | 72½     |
| " 8                     | 4 80   | 4 28   | 6 35    | 4 53    | 3 89    | 86      |
| " 15                    | 5 00   | 4 15   | 6 55    | 4 55    | 3 93    | 84      |
| " 22                    | 4 60   | 4 16   | 6 78    | 4 69    | 4 10    | 94      |
| " 29                    | 4 75   | 4 39   | 6 78    | 4 85    | 4 08    | 07      |
| January 7               | 4 75   | 4 58   | 6 49    | 4 87    | 4 09    | 32      |
| " 14                    | 4 50   | 4 35   | 6 25    | 5 92    | 4 22    | 30      |
| " 22                    | 4 50   | 4 63   | .....   | .....   | .....   | .....   |
| " 29                    | 4 80   | 5 00   | .....   | .....   | .....   | .....   |
| Average for the season. | \$4.46 | \$4.47 | \$6.31½ | \$4.70½ | \$4.00½ | \$2.91  |

The average for the season, it is seen, is about the same as that for the previous year, and it is only necessary to refer to this fact, and to our exhibit of the prices of provisions, in another place, to show the result to packers, of the season's business.

The supply of Beef Cattle throughout the year, has been meagre, and the great bulk of the offerings were of inferior qualities. Prices ruled high throughout, and are still greatly above the average of ordinary years. The monthly averages, commencing with November, were as follows:

|                                |        |
|--------------------------------|--------|
| November, per 100 lbs. net.... | \$6.50 |
| December.....                  | 7.25   |
| January.....                   | 7.20   |
| February.....                  | 7.87   |
| March.....                     | 9.00   |
| April.....                     | 10.00  |
| May.....                       | 10.70  |
| June.....                      | 9.37   |
| July.....                      | 8.00   |
| August.....                    | 7.70   |

Supplies are now increasing, though prime Cattle are still comparatively scarce, and prices are gradually working downwards.

### Salt.

Kanawha and Turks Islands are the two kinds of Salt chiefly used in this city, and it is to these we shall confine our remarks.

Kanawha opened in September, 1854, at 53c, but soon declined to 50c, at which the market remained steady until the last week of November, when it advanced to 55c, and in the second week of December advanced to 58c, but again declined to 55c, and on the first of January to 50c, and about the middle of that month to 43c, at which the market remained steady during the remainder of the season.

Turks Island opened at 85c. ¾ bushel, and at this rate the market was steady up to the middle of November, when the supply being light, consequent upon the low stage of the river, it advanced to \$1, but afterwards gradually declined, and by the middle of January sold at 50c, at which rate the market has been steady, though the price has been nominal, up to the close of the season.

The following table shows the imports and exports of Kanawha and Turks Island Salt at this port for six years.

|                   | Kanawha—Brls.     | Turks Island—Bags. |
|-------------------|-------------------|--------------------|
| Imports. Exports. | Imports. Exports. |                    |
| 1849-50.....      | 114,107 29,509    | 110,650 8,301      |
| 1850-51.....      | 79,353 28,585     | 50,474 7,144       |
| 1851-52.....      | 58,020 27,022     | 91,312 16,314      |
| 1852-53.....      | 78,086 32,870     | 81,626 29,196      |
| 1853-54.....      | 90,832 37,251     | 66,372 30,466      |
| 1854-55.....      | 74,362 36,333     | 72,105 9,606       |

### Clover Seed.

Owing to the partial failure of the crops, during the last two years, this article has commanded rates far above the average. Prices opened at \$6.50, and closed at \$7. The fate of the crop this year is not yet known; it is feared the unusual wet weather will prevent its being gathered.

The following Table shows the price of Clover Seed in this market at the close of each week during the year.

| Date.   | Price. | Date.  | Price. | Date.  | Price. | Date.  | Price. |
|---------|--------|--------|--------|--------|--------|--------|--------|
| Sept. 6 | 6.50   | Dec. 6 | 6.50   | Mar. 7 | 6.60   | June 6 | .....  |
| " 13    | 6.50   | " 13   | 6.50   | " 14   | 6.40   | " 13   | .....  |
| " 20    | 6.50   | " 20   | 6.50   | " 21   | 5.50   | " 20   | .....  |
| " 27    | 7.00   | " 27   | 6.50   | " 28   | 5.50   | " 27   | .....  |
| Oct. 4  | 7.00   | Jan. 3 | 6.50   | Apr. 4 | 5.25   | July 4 | .....  |
| " 11    | 7.00   | " 10   | 6.50   | " 11   | 5.75   | " 11   | .....  |
| " 18    | 7.00   | " 17   | 6.50   | " 18   | 5.50   | " 18   | .....  |
| " 25    | 7.00   | " 24   | 6.85   | " 25   | 5.50   | " 25   | .....  |
| Nov. 1  | 7.00   | " 31   | 6.90   | May 2  | 5.25   | Aug. 1 | 7.00   |
| " 8     | 6.50   | Feb. 7 | 6.75   | " 9    | 5.00   | " 8    | 7.00   |
| " 15    | 6.25   | " 14   | 6.75   | " 16   | 5.00   | " 15   | 7.00   |
| " 22    | 6.20   | " 21   | 6.75   | " 22   | 5.25   | " 22   | 7.00   |
| " 29    | 7.00   | " 28   | 6.65   | " 30   | .....  | " 29   | 7.00   |

### Provisions.

In our Annual Reports for the two years preceding that which comes under our present review, we had occasion to notice a result unsatisfactory to all who were engaged in the business. This in connection with the monetary pressure, led to the exercise of great precaution on the part of packers, and to this the success of the past season's business, is almost entirely attributable. Had the excitement usual in former seasons, under corresponding circumstances, as regarded the supply of Hogs, prevailed last Fall, prices of Hogs would have ruled high, and this would have stimulated feeders and led to a large addition to the number of Hogs, whereby the crop would have been run up to the number packed in 1853-'54. The depression experienced in the market therefore, was of a two-fold beneficial character: it kept down the supply of Hogs, and left packers a good margin for profits. The stock of Hog products in the country, is unusually light, especially in the West, and supplies of every article are very near exhausted in this market. Annexed we present a statement of the prices current at the close of each week, which shows the course of the market during the year:

### AVERAGE PRICES OF LEADING PRODUCTS.

| Week Ending. | Meat Pork. | Prime Lard. | Keg Lard. | Ham.  | Pain. | Bacon. | Shoulders. | Butts. | Shoulders. |
|--------------|------------|-------------|-----------|-------|-------|--------|------------|--------|------------|
| Sept. 13     | 13.50      | 10½         | .....     | ..... | 6½    | 6      | .....      | .....  | .....      |
| " 20         | 13.50      | 10          | .....     | ..... | 7     | 6      | .....      | .....  | .....      |
| " 27         | 13.00      | 10½         | .....     | ..... | 6½    | 6      | .....      | .....  | .....      |
| October 4    | 12.50      | 10          | .....     | ..... | 6½    | 5½     | .....      | .....  | .....      |
| " 11         | 12.50      | 10          | .....     | 11½   | 6½    | 5½     | .....      | .....  | .....      |
| " 18         | 11.75      | 9½          | .....     | ..... | 6½    | 5½     | .....      | .....  | .....      |
| " 25         | 11.75      | 10          | .....     | ..... | 6½    | 5½     | .....      | .....  | .....      |
| Nov. 1       | 10.50      | .....       | .....     | ..... | 6½    | 5½     | .....      | .....  | .....      |
| " 8          | 10.75      | 8½          | .....     | ..... | 6½    | 5½     | .....      | .....  | .....      |
| " 15         | 11.00      | 8½          | .....     | ..... | 6     | 5½     | .....      | .....  | .....      |
| " 22         | 12.00      | 8½          | .....     | ..... | 5½    | 5½     | .....      | .....  | .....      |
| " 29         | 12.50      | 9           | .....     | ..... | 5½    | 5½     | .....      | .....  | .....      |
| Dec. 6       | 12.50      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 13         | 11.50      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 20         | 12.00      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 27         | 11.50      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| Jan. 3       | 11.25      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 10         | 11.25      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 17         | 11.00      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 24         | 11.50      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 31         | 12.00      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| Feb. 7       | 11.75      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 14         | 12.00      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 21         | 12.50      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 28         | 12.75      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| March 7      | 13.00      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 14         | 13.00      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 21         | 13.50      | 8½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 28         | 13.75      | 9           | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| April 4      | 14.00      | 9           | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 11         | 14.50      | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 18         | 1.50       | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 26         | 15.50      | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| May 2        | 15.25      | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 9          | 15.50      | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 16         | 15.75      | 10          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 23         | 16.00      | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 30         | 16.00      | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| June 6       | 16.00      | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 13         | 16.00      | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 20         | 16.00      | 9½          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 27         | 17.50      | 10          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| July 4       | 18.25      | 10          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 11         | 18.00      | 10          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 18         | 18.00      | 10          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 25         | 18.00      | 10          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| August 1     | 18.00      | 10          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 8          | 18.00      | 10          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 15         | 18.00      | 10½         | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 22         | 19.00      | 10½         | .....     | ..... | ..... | .....  | .....      | .....  | .....      |
| " 29         | 20.00      | 11          | .....     | ..... | ..... | .....  | .....      | .....  | .....      |

### Whisky.

Owing to the high price of Corn, the range of prices of this article, during the year, has been irregular, and our figures show a considerable falling off in the receipts, as compared with the year previous.

The following Table shows the price of Raw Whisky at the close of each week during the year.

| Date.   | Price. | Date.  | Price. | Date.  | Price. | Date.  | Price. |
|---------|--------|--------|--------|--------|--------|--------|--------|
| Sept. 6 | 33     | Dec. 6 | 30½    | Mar. 7 | 25     | June 6 | 30     |
| " 13    | 33     | " 13   | 29½    | " 14   | 24½    | " 13   | 31½    |
| " 20    | 29     | " 20   | 28     | " 21   | 24½    | " 20   | 30½    |
| " 27    | 30     | " 27   | 30     | " 28   | 25½    | " 27   | 31     |
| Oct. 4  | 30½    | Jan. 3 | 29     | Apr. 4 | 27     | July 4 | 31½    |
| " 11    | 29     | " 10   | 26     | " 11   | 29     | " 11   | 31     |
| " 18    | 28     | " 17   | 25½    | " 18   | 31     | " 18   | 31     |
| " 25    | 28     | " 24   | 25½    | " 25   | 34     | " 25   | 31     |
| Nov. 1  | 29     | " 31   | 25½    | May 2  | 33     | Aug. 1 | 32½    |
| " 8     | 30     | Feb. 7 | 24     | " 9    | 34½    | " 8    | 33     |
| " 15    | 30     | " 14   | 25     | " 16   | 33     | " 15   | 33     |
| " 22    | 33½    | " 21   | 25½    | " 23   | 33     | " 22   | 33     |
| " 29    | 32     | " 28   | 23½    | " 30   | 30     | " 29   | 34     |



The following Table shows the Imports and Exports of Raw Whisky, at this Port, for six years.

|                       | Imports. | Exports. |
|-----------------------|----------|----------|
| 1849-50 brls. - - - - | 186,678  | 179,540  |
| 1850-51 " - - - -     | 244,047  | 231,324  |
| 1851-52 " - - - -     | 272,788  | 276,124  |
| 1852-53 " - - - -     | 280,317  | 257,616  |
| 1853-54 " - - - -     | 285,343  | 249,612  |
| 1854-55 " - - - -     | 272,165  | 243,551  |

### Steam Fire Engines.

Amongst the new departments which have arisen in the industrial department of our city during the last five years, or, indeed we may say within the last twenty years, that of the invention and manufacture of steam fire engines stands pre-eminent, because these engines have already produced an entire revolution in the fire department of this city, and are destined, at no distant day, to entirely change the fire departments in all the leading cities of the Union. And, not only this, but the skill and energy of our mechanics, has, through this invention, been heralded across the Atlantic, and already in London and Paris, has the merits of the Cincinnati Steam Engine for extinguishing fires, been discussed in the public journals.

The first of these engines was built by Messrs. Shaw & Latta, Machinists, of the city, in 1852, and so successful has been the invention, that we have now three engines in successful operation, and four more are in course of construction for our city authorities. One, also has been built for New Orleans; one for Boston; one for Columbus; one for Philadelphia, and one (now being finished) for St. Louis; and in the course of two or three years more, there is no doubt but that every leading city in the Union will be provided with, at least, one of these engines.

The double engines, such as are now used in this city, cost about \$10,000 each, and the single engines from six to eight thousand dollars. The larger engine forces water through an inch and a half nozzle over two hundred and sixty feet, horizontally, and will force it through similar nozzles, throwing four streams at once, one hundred and fifty feet. The power and efficiency of these engines to extinguish fires, can be appreciated at once when we state that the double one, by throwing four streams, will eject two thousand barrels of water an hour. The double engine is seventy-five, and the single forty horse power. Steam can be gotten up in five or six minutes from the time the fire is started in the furnace.

The power and efficiency of this mode of extinguishing fires, are clearly demonstrated in the fact that three of the engines have been used with unbounded success in this city for from one to two years, and our city authorities have decided to dispense with the old hand engine altogether, and are having four additional steam fire engines built, by which the expenses of our fire department will be reduced one-third, and the power to arrest any conflagration which may arise increased ten-fold. In fact, the spread of a fire beyond the building in which it originates, is now considered an impossibility in this city.

### Furniture.

The manufacture of Chairs and Cabinet-Ware of all descriptions, from the eight dollar bureau to the thousand dollar bedstead; and from the slat-bottomed chair to the splendid and costly rose wood Elizabethian, is one of the great features of the industrial department of Cincinnati. The number of hands which this department of our manufactures gives employment to, either directly or indirectly, cannot be less than five thousand. There are seventeen large establishments, besides a large number of small ones, which are engaged in this business. The value of the furniture manufactured by each establishment, ranges from forty thousand to three hundred thousand dollars per year, and, in the aggregate, reaches \$1,700,000, and by adding the value of that manufactured by the small establishments, it would swell the amount to nearly two millions and a quarter dollars. The Cabinet Ware manufactured here finds a market at all the leading points in the great valley of the Mississippi. In Texas, Florida, Alabama, Mississippi, and Louisiana; in Arkansas, Tennessee, Missouri, Indiana, and Kentucky, Cincinnati beds, bureaus, tables, chairs, wardrobes, sofas, and all the numerous articles coming under this head, are to be found on all hands. This business has increased during the last six or seven years, at the rate of twenty-five per cent. per annum. Last year, owing to the depression of all kinds of business, it fell back a little, but within the last two months the orders have come in very rapidly and are now more numerous and extensive than they have been at any

time, at this season, during the last six or seven years.

### Sash, Door, Blind, and Portable Cottage Manufacture, &c.

Next in importance to Furniture among the manufactures of wood, is the above. There are eighteen establishments, where two or more of these departments are carried on; and where the doors and door cases, the windows and window cases, the exterior and interior blinds, and the flooring, are prepared ready to be placed in buildings; all done by machinery, and put together neater and more accurately than they could be done by hand. In addition to these is the manufacture of portable houses; of which, about one hundred were manufactured by one establishment, during the last year. The various articles manufactured in these establishments find a market chiefly in Illinois, Missouri, Texas, Kentucky, Indiana, Tennessee, Louisiana, and Mississippi. A large number of portable houses were taken to Kansas and Nebraska, last summer; and no doubt that Governor Shanon is now swaying the sceptre of Kansas sitting in a Cincinnati house.

The value of the various articles coming under this head, which were manufactured here during the year, is \$1,430,000.

### Manufacture of Curled Hair and Bristles

This is a new business, which has arisen within the last two years, and has already become very extensive, and promises to be one of great importance. The hair or bristle taken off the hog until very recently, was regarded as worthless, except that portion of it used for brushes; but now it is all used, and turned to good account, as will be admitted, when we say that the value of hogs' bristles manufactured into curled hair, for upholsters' use, and for export, in this city, during the last year, is about \$106,000. The average price of the curled hair is 10 cents per pound, and of the best bristles 42½ cents per pound, though an inferior article sells at 25 cents per pound.

### Marbleized Iron.

This is among the new departments of our industry, which has just arisen, and promises to be very extensive. The secret of this is the art of marbleizing cast iron, and giving it a surface, grain, and polish equal to the finest Egyptian Marble. The iron in the first place is cast into the desired shape, and the surface is polished and grained by this process and except to the experienced eye has all the appearance of the finest marble. Mantels and Table Tops are produced in endless variety, and find a ready market in all the leading towns in the West, from Chicago at the North to New Orleans at the South, and the demand is rapidly increasing. The permanency and durability of this article are placed beyond a doubt, it having been satisfactorily established, that it is less liable to be injured than is real Marble. The cheapness at which the articles are produced, is greatly in favor of its coming into general use. Mantels range in price from twenty-five to fifty dollars, and Table Tops are equally low, in proportion.

### Average Prices

Of BACON, SIDES, and SHOULDERS, for each month during the last three years.

| MONTHS.        | SIDES. |        |        | SHOULDERS. |        |        |
|----------------|--------|--------|--------|------------|--------|--------|
|                | 52-53. | 53-54. | 54-55. | 52-53.     | 53-54. | 54-55. |
| September..... | 9½     | 7½     | 6½     | 7½         | 6½     | 6      |
| October.....   | 8      | 7½     | 6½     | 7½         | 6½     | 5½     |
| November.....  | 7½     | 7½     | 6      | 7½         | 6½     | 5½     |
| December.....  | 9      | 5      | 6      | 4          | ...    | ...    |
| January.....   | 9      | ...    | 6      | 8          | ...    | ...    |
| February.....  | 7½     | 6½     | 6½     | 6½         | 5½     | 5½     |
| March.....     | 7½     | 6½     | 6½     | 6          | 5½     | 6      |
| April.....     | 7½     | 6½     | 6½     | 5½         | 5½     | 7½     |
| May.....       | 7½     | 6½     | 6½     | 5½         | 5½     | 7½     |
| June.....      | 6½     | 5½     | 9      | ...        | 5      | 8      |
| July.....      | 6½     | 5½     | 9      | ...        | 5      | 8½     |
| August.....    | 6½     | 6      | 10     | ...        | 5½     | 9½     |

### Average Prices

Of CORN and MESS PORK, for each month during the last three years.

| MONTHS.        | CORN.  |        |        | MESS PORK. |        |        |
|----------------|--------|--------|--------|------------|--------|--------|
|                | 52-53. | 53-54. | 54-55. | 52-53.     | 53-54. | 54-55. |
| September..... | 43     | 55     | 68     | 19.50      | 14.41  | 13.40  |
| October.....   | 41     | 55     | 65     | 19.50      | 14.57  | 12.00  |
| November.....  | 40     | 41     | 57     | 14.75      | 12.80  | 11.05  |
| December.....  | 37½    | 41     | 57½    | 16.87      | 11.62  | 11.87  |
| January.....   | 42     | 40     | 60     | 16.16      | 11.50  | 11.40  |
| February.....  | 43½    | 46     | 64½    | 14.75      | 12.87  | 12.33  |
| March.....     | 40     | 45½    | 66     | 14.50      | 12.20  | 13.31  |
| April.....     | 41     | 49     | 75     | 14.40      | 12.00  | 15.00  |
| May.....       | 40     | 59     | 78½    | 14.75      | 12.25  | 16.70  |
| June.....      | 43     | 52     | 75     | 14.60      | 12.00  | 16.37  |
| July.....      | 48     | 46     | 71     | 14.10      | 11.04  | 16.08  |
| August.....    | 55     | 50     | 70½    | 14.00      | 11.74  | 16.7   |

### The Money-Market.

Having in another place given a synopsis of the unsettled state of financial as well as commercial affairs, during the year, it is not necessary to recapitulate. The previous year, the money market was "tight," not so much owing to the want of capital as the want of confidence, which had in that year become so general and wide-spread, throughout the business community, and as the year closed the indications looked more unfavorable. In the fall of 1854, it was next to impossible to negotiate the best paper, the want of confidence which had been so general in the previous summer having become still more deep, and the most extravagant conclusions were drawn in regard to the future.

Local paper, having the very best security hypothecated to secure its payment, sold in the month of November at twenty-four ¼ cent. per annum, and there was great difficulty in having it done at this rate. Exchange on the East rose to three per cent. prem., and those who had remittances to make to meet their obligations, found themselves in a most unpleasant situation. Early in the fall, the great mass of our paper currency consisted of the notes of the Indiana Stock Banks, and early in October this paper was thrown out by our Bankers, so that it, or no other Western currency which was to be had, could be used in the East, and merchants throughout Indiana who were indebted to our merchants, had nothing but this Indiana currency to pay with. The revolutions and disasters of the fall months made capitalists cling to their spare balances with increased tenacity; and, as we have said before, loans were obtained in few instances, and at enormous rates of discount; but as the new year arrived, and navigation was resumed on the Ohio, and Western rivers generally, confidence became to some extent restored, and matters wore a brighter aspect, and money could be obtained more freely on first class business paper, at 12 to 15 ¼ cent. As the spring and the summer arrived, the capital in the hands of the Banks accumulated; and, for first class paper, the money market became decidedly easy, and all the good paper offered was taken by the Banks from their customers, at 6 ¼ cent., and the year closed with capital plenty, good local business paper in demand, and Exchange on the East down to ¼ prem. for Bankers' Checks. In another place will be found a table showing the rates at which our Banking houses were drawing for, at sight, on the Eastern cities and New Orleans, at the close of each week during the year.

### Rates of Sight Exchange

On New York and the Eastern cities, and New Orleans, during the year.

|             | NEW YORK. |           | NEW ORLEANS. |           |
|-------------|-----------|-----------|--------------|-----------|
|             | 1853-'54. | 1854-'55. | 1853-'54.    | 1854-'55. |
|             | p'm       | dis       | p'm          | dis       |
| Week ending | 7         | 1½        | 1½           | ...       |
| September   | 14        | 1½        | 1½           | ...       |
| "           | 21        | 1½        | 1½           | ...       |
| "           | 28        | 1½        | 1½           | ...       |
| October     | 5         | 1½        | 1½           | ...       |
| "           | 12        | 1½        | 1½           | ...       |
| "           | 19        | 1½        | 1½           | ...       |
| "           | 26        | 1½        | 1½           | ...       |
| November    | 5         | 1½        | 1½           | ...       |
| "           | 12        | 1½        | 1½           | ...       |
| "           | 19        | 1½        | 1½           | ...       |
| "           | 26        | 1½        | 1½           | ...       |
| December    | 3         | 1½        | 1½           | ...       |
| "           | 10        | 1½        | 1½           | ...       |
| "           | 17        | 1½        | 1½           | ...       |
| "           | 24        | 1½        | 1½           | ...       |
| January     | 7         | 1½        | 1½           | ...       |
| "           | 14        | 1½        | 1½           | ...       |
| "           | 21        | 1½        | 1½           | ...       |
| "           | 28        | 1½        | 1½           | ...       |
| February    | 4         | 1½        | 1½           | ...       |
| "           | 11        | 1½        | 1½           | ...       |
| "           | 18        | 1½        | 1½           | ...       |
| "           | 25        | 1½        | 1½           | ...       |
| March       | 11        | 1½        | 1½           | ...       |
| "           | 18        | 1½        | 1½           | ...       |
| "           | 25        | 1½        | 1½           | ...       |
| April       | 1         | 1½        | 1½           | ...       |
| "           | 8         | 1½        | 1½           | ...       |
| "           | 15        | 1½        | 1½           | ...       |
| "           | 22        | 1½        | 1½           | ...       |
| "           | 29        | 1½        | 1½           | ...       |
| May         | 6         | 1½        | 1½           | ...       |
| "           | 13        | 1½        | 1½           | ...       |
| "           | 20        | 1½        | 1½           | ...       |
| "           | 27        | 1½        | 1½           | ...       |
| June        | 3         | 1½        | 1½           | ...       |
| "           | 10        | 1½        | 1½           | ...       |
| "           | 17        | 1½        | 1½           | ...       |
| "           | 24        | 1½        | 1½           | ...       |
| July        | 1         | 1½        | 1½           | ...       |
| "           | 8         | 1½        | 1½           | ...       |
| "           | 15        | 1½        | 1½           | ...       |
| "           | 22        | 1½        | 1½           | ...       |
| "           | 29        | 1½        | 1½           | ...       |
| August      | 5         | 1½        | 1½           | ...       |
| "           | 12        | 1½        | 1½           | ...       |
| "           | 19        | 1½        | 1½           | ...       |
| "           | 26        | 1½        | 1½           | ...       |
| "           | 31        | 1½        | 1½           | ...       |



### DESTINATION OF THE PRINCIPAL ARTICLES

EXPORTED FROM THE PORT OF CINCINNATI, FOR THREE YEARS, COMMENCING  
SEPTEMBER 1st. AND ENDING AUGUST 31st. EACH YEAR.

| Commities.     | To N. ORLEANS. |         |         | To OTHER DOWN RIVER PORTS. |         |         | To U.P.R.R PORTS. |         |         | Via CANALS AND RAILWAYS. |         |         | By FLAT BOATS. |         |         |
|----------------|----------------|---------|---------|----------------------------|---------|---------|-------------------|---------|---------|--------------------------|---------|---------|----------------|---------|---------|
|                | '52-'53        | '53-'54 | '54-'55 | '52-'53                    | '53-'54 | '54-'55 | '52-'53           | '53-'54 | '54-'55 | '52-'53                  | '53-'54 | '54-'55 | '52-'53        | '53-'54 | '54-'55 |
| Apples, brls   | 2484           | 3308    | 1496    | 2998                       | 216     | 732     | 440               | 3771    | 75      | 598                      | 944     | 1124    |                |         | 150     |
| Alcohol        | 2659           | 2329    | 2486    | 1446                       | 1541    | 1197    | 1766              | 8676    | 5827    | 3798                     | 5981    | 10446   |                | 48      |         |
| Beef           | 23465          | 13810   | 13622   | 913                        | 416     | 554     | 675               | 3759    | 1765    | 1529                     | 3669    | 1640    |                | 228     | 8       |
| Do tcs.        | 15553          | 4225    | 4444    | 49                         | 6       | 137     | 745               | 2456    | 4696    | 969                      | 770     | 4720    |                |         |         |
| Beans, brls    | 3076           | 3204    | 1558    | 139                        | 137     | 277     | 62                | 25      | 25      | 183                      | 67      | 142     |                | 20      | 15      |
| Do, do, doz    | 2185           | 1811    | 5808    | 5196                       | 9400    | 9235    | 10                | 2030    | 150     | 189                      | 188     | 1849    |                |         | 730     |
| Butter, brls   | 2922           | 2306    | 786     | 840                        | 792     | 470     | 93                | 271     | 20      | 78                       | 174     | 34      |                | 75      | 3       |
| Do fks&ags     | 35890          | 30359   | 17724   | 3851                       | 7892    | 5666    | 51                | 2098    | 111     | 2524                     | 1246    | 695     |                | 290     | 142     |
| Bran, c&csks   | 446            |         | 347     | 4230                       | 7834    | 2402    | 4850              | 5670    | 6242    | 430                      | 1791    | 2465    |                |         |         |
| Bagging, pcs   | 5526           | 2886    | 953     | 8251                       | 3193    | 1517    |                   |         |         | 290                      | 30      | 15      |                |         |         |
| Corn, sks.     | 367            | 30      | 5141    | 31                         | 1836    | 3901    | 31948             | 37392   | 46718   | 26503                    | 168     | 8584    |                |         |         |
| On M'l, brls   | 200            | 371     | 178     | 17                         | 20      | 87      | 4                 | 30      | 1758    | 97                       | 6       | 749     |                |         | 20      |
| Chow, c&cs     |                |         |         |                            |         |         |                   |         |         |                          |         |         |                |         |         |
| Do bxs.        | 52479          | 51069   | 31841   | 78517                      | 72091   | 58483   | 3685              | 4903    | 1471    | 8335                     | 1115    | 10517   |                | 2477    | 835     |
| Candles.       | 68123          | 74373   | 54594   | 35687                      | 42327   | 50259   | 32436             | 21781   | 15032   | 17573                    | 12687   | 19193   |                | 1410    | 241     |
| Cattle, head   | 61             | 29      | 106     | 45                         | 58      | 73      | 51                | 31      |         | 2506                     | 11566   | 10107   |                |         |         |
| Cotton, b'ls   | 26             |         |         | 126                        |         |         | 9502              | 9882    | 6012    | 2409                     | 5663    | 4009    |                |         |         |
| Coffee, sks.   | 306            | 25      |         | 20232                      | 14406   | 14388   | 9592              | 7214    | 4231    | 37272                    | 26899   | 23214   |                | 50      | 100     |
| Coop'ee, pcs   | 26175          | 59852   | 49773   | 31307                      | 72680   | 41156   | 12785             | 14856   | 6568    | 28594                    | 26631   | 10637   |                |         | 60      |
| Eggs, brls.    | 4969           | 2730    | 1559    | 436                        |         |         | 392               | 1060    | 638     | 3252                     | 2379    | 2382    |                |         |         |
| Flour, b'ls    | 20237          | 148932  | 10283   | 4573                       | 10207   | 886     | 19103             | 83358   | 65116   | 421                      | 90621   | 122961  |                | 76579   | 46778   |
| Feathers, sks  | 108            | 114     | 60      | 29                         | 173     | 142     | 5449              | 522     | 2329    | 8924                     | 4079    | 4828    |                |         |         |
| Fruit, d'd, b  | 2063           | 1620    | 1579    | 12726                      | 3073    | 5817    | 612               | 9257    | 232     | 3450                     | 18023   | 5401    |                |         |         |
| Grease, brls   |                | 614     |         | 16                         | 99      | 587     | 1053              | 3556    | 2677    | 5041                     | 11044   | 6169    |                |         |         |
| Grass Seed.    | 283            | 40      | 21      | 4782                       | 9039    | 4478    | 2019              | 3536    | 630     | 1229                     | 1740    | 2201    |                |         |         |
| Horses, head   | 417            | 572     | 239     | 952                        | 913     | 1080    | 293               | 473     | 115     | 110                      | 120     | 196     |                |         |         |
| Hay, bales.    | 1970           | 31      | 302     | 1715                       | 516     | 1112    | 72                | 121     | 471     | 156                      | 12      | 121     |                | 436     |         |
| Hides, lbs.    |                |         |         | 496                        | 1051    | 18      | 548               | 1184    | 587     | 20                       | 391     | 1943    |                |         |         |
| Hides, No.     |                |         |         | 4265                       | 1124    | 1138    | 16026             | 20892   | 16445   | 15951                    | 14316   | 6944    |                |         |         |
| Iron, pcs.     | 6626           | 13536   | 18042   | 95477                      | 153040  | 258598  | 8622              | 8133    | 11318   | 111524                   | 65177   | 316842  |                |         |         |
| Do bds.        | 2567           | 2018    | 2053    | 26616                      | 30577   | 31774   | 2071              | 2145    | 734     | 24227                    | 27623   | 29155   |                | 90      |         |
| Do tons.       | 52             | 36      | 237     | 2200                       | 1662    | 1082    | 973               | 2262    | 1380    | 14221                    | 14362   | 8779    | 3-2            | 140     | 28      |
| Lard, brls.    | 18574          | 9427    | 16517   | 138                        | 107     | 622     | 10635             | 34517   | 12048   | 13033                    | 13003   | 14312   |                | 17      | 26      |
| Do eggs.       | 6570           | 1350    | 6317    | 183                        | 107     | 1815    | 777               | 33058   | 11601   | 13018                    | 5190    | 4357    |                | 2348    | 638     |
| Lard Oil       | 13220          | 11806   | 6110    | 2975                       | 3338    | 2400    | 5905              | 7313    | 18154   | 9440                     | 11281   | 16925   |                | 22      | 194     |
| Linseed Oil    | 1176           | 535     | 485     | 2034                       | 3193    | 1868    | 1637              | 513     | 253     | 1811                     | 1248    | 85      |                | 20      | 3       |
| Molasses, b'ls |                | 145     |         | 7630                       | 5030    | 2467    | 32694             | 28281   | 18006   | 24492                    | 29225   | 24677   |                |         |         |
| Oil Cake, tns  | 1401           | 668     | 54      | 16                         |         |         |                   |         | 70      | 2342                     | 1162    | 654     |                |         | 150     |
| Oats, sks.     | 6376           | 406     | 12489   | 64                         | 160     | 4768    | 85                | 724     | 9789    | 82                       | 2493    | 15226   |                | 1000    |         |
| Potatoes, b'ls | 4938           | 4133    | 1516    | 3403                       | 2175    | 3654    | 1684              | 149     | 1068    | 8054                     | 838     | 3861    |                | 550     | 1246    |
| Pk & B'n, hd   | 20225          | 13622   | 12396   | 6392                       | 358     | 2459    | 18742             | 29738   | 21102   | 7491                     | 5467    | 6582    |                | 639     | 150     |
| Do prod, ps    | 13510          | 1551    | 320     | 1910                       | 26550   | 21087   | 24683             | 50683   | 19740   | 3505                     | 2872    | 100929  |                |         | 7500    |
| Do brls        | 103626         | 50647   | 58872   | 332                        | 2478    | 1782    | 8629              | 36395   | 21063   | 28130                    | 4098    | 21552   |                | 2174    | 2280    |
| Do bxs.        | 1892           | 477     | 4099    | 2                          | 100     |         | 3546              | 1058    | 10487   | 898                      | 301     | 7988    |                | 160     |         |
| Do in blk, lb  | 139601         | 355000  | 205208  | 135782                     | 97103   |         | 688821            | 645953  | 541865  | 972803                   | 907852  | 125881  |                | 219801  | 461000  |
| Rope, pks      | 4468           | 2724    | 858     | 8007                       | 4999    | 2319    | 722               | 1494    | 128     | 1160                     | 1123    | 604     |                | 90      |         |
| Soap, bxs.     | 6521           | 6651    | 4054    | 15838                      | 17618   | 10523   | 5799              | 9284    | 11102   | 8878                     | 6092    | 8568    |                | 534     | 325     |
| Sheep, head    | 300            | 85      |         | 102                        | 90      |         |                   | 58      |         | 650                      | 790     | 1600    |                |         |         |
| Sugar, b' hds  |                |         |         | 102                        | 90      |         | 810               | 7091    | 4005    | 2925                     | 35599   | 26633   |                |         |         |
| Do brls.       |                | 40      |         | 7478                       | 2019    | 1822    | 324               | 15      | 343     | 25079                    | 2608    | 2608    |                | 167     | 100     |
| Do sks.        |                |         | 48      | 19830                      | 21034   | 7304    | 5216              | 4346    | 677     | 5650                     | 5077    | 1577    |                | 100     | 45      |
| Sd Flax, pks   | 88             | 27      | 25      | 2177                       | 1522    | 569     | 414               | 608     | 204     | 864                      | 788     | 393     |                |         |         |
| S'y mdz brls   | 11129          | 31850   | 19700   | 324627                     | 264660  | 162850  | 133770            | 122460  | 63825   | 587949                   | 787560  | 565450  |                |         |         |
| Do to tons     | 462            | 207     | 370     | 670                        | 1380    | 2070    | 30                |         |         | 20                       | 4936    | 10857   |                | 6006    | 20      |
| Do liq's, br   | 5035           | 5480    | 2821    | 30291                      | 29190   | 16662   | 5417              | 6443    | 2460    | 12965                    | 7422    | 3771    |                | 380     | 50      |
| Do m'r's, ps   | 39418          | 129498  | 12132   | 112506                     | 211566  | 190365  | 9185              | 27033   | 20740   | 7530                     | 15555   | 15067   |                | 1803    |         |
| Do prod, ps    | 13015          | 1551    | 320     | 1910                       | 26550   | 21087   | 24683             | 50683   | 19740   | 3505                     | 2872    | 100929  |                | 30      |         |
| Starch, b'ls   | 13015          | 14642   | 12949   | 7534                       | 838     | 9261    | 1688              | 1257    | 756     | 2357                     | 1583    | 2193    |                |         | 75      |
| Tallow, brls   | 183            | 60      | 223     | 563                        | 399     | 20      | 1475              | 1048    | 1079    | 2346                     | 4300    | 5571    |                |         |         |
| T'co, ks, bxs  | 3815           | 1123    | 777     | 9556                       | 10080   | 7030    | 4264              | 5830    | 3218    | 16232                    | 13708   | 15052   |                | 209     | 173     |
| Do hhd's.      | 434            | 160     | 333     | 281                        | 127     | 17      | 252               | 1306    | 655     | 5935                     | 7760    | 3963    |                |         |         |
| Do bales.      |                | 26      |         | 312                        | 1131    | 1058    | 385               | 871     | 604     | 644                      | 1342    | 1645    |                |         | 30      |
| Vinegar, brls  | 449            | 450     | 1277    | 4107                       | 2419    | 2693    | 1203              | 585     | 435     | 2490                     | 2715    | 3302    |                | 236     |         |
| Whisky         | 129111         | 99930   | 83759   | 50801                      | 60525   | 59752   | 60654             | 69052   | 56738   | 16050                    | 20102   | 33092   |                | 19478   | 7961    |
| Do in bales    |                |         |         | 583                        | 180     | 353     | 7238              | 8068    | 3689    | 1257                     | 2193    | 4482    |                |         |         |
| Wool, lbs.     |                |         |         |                            |         |         |                   |         |         | 1584                     | 1443    | 4482    |                |         |         |
| White Ld, kgs  | 2645           | 1368    | 656     | 36344                      | 36200   | 21566   | 7445              | 7746    | 4973    | 29227                    | 20089   | 29023   |                | 130     |         |
| Castings, pcs  | 3862           | 4402    | 3027    | 51454                      | 96626   | 48822   | 2201              | 5184    | 967     | 9859                     | 62873   | 27447   |                | 409     | 106     |
| Do ts          | 1746           | 1158    | 742     | 448                        | 604     | 1028    | 52                | 29      | 13      | 833                      | 1183    | 290     |                | 8       |         |

### VALUE OF PRINCIPAL EXPORTS

From the Port of Cincinnati, for the years ending  
August 31st, 1854 and 1855.

| ARTICLES.             | TOTAL.  | AVG PRICE. | TOTAL VALUE. | TOTAL LAST YR. |
|-----------------------|---------|------------|--------------|----------------|
| Apples, gr.....brls   | 3,437   | 2 50       | 8,567        | 14,417         |
| Alcohol.....          | 19,956  | 26 40      | 528,538      | 311,047        |
| Beef.....             | 17,654  | 11 50      | 202,216      | 251,594        |
| Do.....tcs            | 13,977  | 17 00      | 237,609      | 123,336        |
| Beans.....            | 1,297   | 7 00       | 9,079        | 10,169         |
| Brooms.....doz        | 18,275  | 2 25       | 41,119       | 32,342         |
| Butter.....brls       | 1,300   | 32 60      | 42,580       | 108,090        |
| Do firkins & cgs      | 24,425  | 11 00      | 268,156      | 415,450        |
| Bran &c.....sks       | 11,436  | 8 00       | 91,888       | 105,450        |
| Baging.....           | 2,485   | 2 80       | 6,958        | 16,770         |
| Corn.....sks          | 64,344  | 1 40       | 90,081       | 39,430         |
| Corn Meal.....brls    | 2,772   | 2 90       | 8,038        | 1,057          |
| Cheese.....cxs        | 4       | 30 00      | 80           | 454            |
| Do.....bks            | 102,952 | 3 30       | 337,761      | 454,116        |
| Candles.....          | 139,741 | 70 00      | 1,057,551    | 1,454,176      |
| Cattle.....brls       | 24,425  | 10 00      | 244,250      | 502,102        |
| Cotton.....bales      | 10,021  | 44 00      | 441,224      | 497,335        |
| Coffee.....sks        | 42,233  | 18 50      | 782,235      | 775,144        |
| Cooperage.....pcs     | 108,105 | 1 20       | 128,726      | 172,849        |
| Eggs.....brls         | 5,014   | 8 00       | 40,112       | 48,157         |
| Flour.....            | 194,276 | 8 15       | 1,624,099    | 2,096,501      |
| Fruit.....sks         | 7,319   | 26 00      | 190,294      | 230,356        |
| Fruit, dried.....bush | 13,025  | 20 00      | 260,505      | 35,203         |
| Feathers.....brls     | 17,000  | 17 00      | 289,000      | 251,000        |
| Grass seed.....       | 7,330   | 16 00      | 117,240      | 215,625        |
| Horses.....head       | 1,630   | 155 00     | 252,550      | 259,750        |
| Hay.....bales         | 5,706   | 2 70       | 15,406       | 1,950          |
| Hemp.....bales        | 2,918   | 35 00      | 102,130      | 117,650        |
| Hides.....bs          | 44,035  | 12         | 5,284        | 651            |
| Hides.....no          | 24,427  | 3 50       | 85,494       | 108,961        |
| Iron.....pcs          | 90,281  | 50 00      | 4,514,050    | 543,581        |
| Lard.....brls         | 63,716  | 7 75       | 493,925      | 249,935        |
| Do.....tons           | 11,978  | 75 00      | 898,530      | 1,466,560      |
| Lard.....brls         | 43,799  | 20 00      | 875,990      | 1,084,616      |
| Do.....bks            | 62,906  | 4 50       | 282,627      | 373,394        |
| Lard Oil.....brls     | 43,995  | 30 00      | 1,307,560    | 1,232,728      |
| Linseed Oil.....      | 3,454   | 37 00      | 127,798      | 205,038        |
| Blasses.....          | 45,150  | 30 00      | 1,354,500    | 607,048        |
| Oats.....tons         | 12,000  | 25 00      | 300,000      | 27,630         |
| Oil.....cxs           | 42,282  | 1 25       | 52,852       | 52,773         |
| Potatoes, &c.....brls | 10,399  | 3 25       | 33,797       | 9,119          |
| Pork & Bacon.....brls | 42,469  | 60 00      | 2,548,140    | 2,365,040      |
| Do.....tcs            | 40,515  | 20 00      | 810,300      | 931,984        |
| Do.....brls           | 104,275 | 14 50      | 1,511,987    | 1,619,510      |
| Do.....bxs            | 22,904  | 20 00      | 458,080      | 387,314        |
| Do in bulk.....       | 873,471 | 6 00       | 5,240,826    | 96,977         |
| R'pe, tw'g, &c.....   | 2,979   | 7 00       | 20,953       | 20,953         |
| Soap.....bxs          | 34,247  | 3 30       | 113,015      | 128,544        |
| Sheep.....head        | 1,650   | 2 20       | 3,630        | 2,038          |
| Sugar.....hhds        | 32,432  | 62 00      | 2,010,784    | 1,985,355      |
| Salt.....brls         | 36,333  | 3 10       | 112,632      | 111,735        |
| Do.....sks            | 9       | 36 00      | 324          | 36,605         |
| Seed flax.....        | 1,126   | 1 40       | 1,576        | 15,452         |
| Sundry.....dz         | 31,425  | 7 50       | 2,356,875    | 2,356,875      |
| Do mdz.....tons       | 8,466   | 600 00     | 5,079,600    | 7,468,000      |
| Do liquors.....brls   | 25,714  | 45 00      | 1,157,130    | 1,940,600      |
| Do manf'rs.....pks    | 347,561 | 3 00       | 1,040,256    | 1,527,885      |
| Do prod'c.....pks     | 141,925 | 5 00       | 709,625      | 325,576        |
| Starch.....bxs        | 24,520  | 3 60       | 88,272       | 102,025        |
| Tallow.....brls       | 6,893   | 35 00      | 241,255      | 236,698        |
| Tobacco.....kgs & bxs | 26,078  | 90 00      | 594,702      | 676,302        |
| Do.....brls           | 3,807   | 30 00      | 114,210      | 748,120        |
| Do.....bales          | 8,307   | 58 00      | 281,108      | 259,590        |
| Vinegar.....brls      | 8,643   | 2 50       | 21,607       | 16,260         |
| Whisky.....           | 243,551 | 12 00      | 2,922,612    | 1,996,866      |
| Wool.....bales        | 6,436   | 34 00      | 218,790      | 225,305        |
| Wool.....brls         | 8,482   | 28         | 1,254        | 425,780        |
| White Lead.....pks    | 55,218  | 2 20       | 121,478      |                |

**Comparative Monthly Statement of Steamboats Arrivals and Departures.**  
**AT THIS PORT FOR FOUR YEARS, ENDING AUGUST 31, EACH YEAR.**

## ARRIVED FROM

| MONTHS.        | NEW ORLEANS. |         |         |         |  | PITTSBURGH. |         |         |         |  | ST. LOUIS. |         |         |         |  | OTHER PORTS. |         |         |         |  | TOTAL.  |         |         |         |  |
|----------------|--------------|---------|---------|---------|--|-------------|---------|---------|---------|--|------------|---------|---------|---------|--|--------------|---------|---------|---------|--|---------|---------|---------|---------|--|
|                | '51-'52      | '52-'53 | '53-'54 | '54-'55 |  | '51-'52     | '52-'53 | '53-'54 | '54-'55 |  | '51-'52    | '52-'53 | '53-'54 | '54-'55 |  | '51-'52      | '52-'53 | '53-'54 | '54-'55 |  | '51-'52 | '52-'53 | '53-'54 | '54-'55 |  |
| September..... | 2            | 8       | 1       | ..      |  | 29          | 40      | 41      | 1       |  | 10         | 25      | 29      | 7       |  | 908          | 255     | 287     | 104     |  | 250     | 338     | 328     | 11      |  |
| October.....   | 2            | 1       | ..      | ..      |  | 56          | 30      | 30      | 13      |  | 14         | 21      | 17      | 8       |  | 225          | 208     | 245     | 121     |  | 272     | 260     | 342     | 14      |  |
| November.....  | 2            | 11      | 17      | ..      |  | 56          | 62      | 60      | 10      |  | 30         | 26      | 22      | 19      |  | 288          | 229     | 262     | 163     |  | 374     | 328     | 355     | 19      |  |
| December.....  | 10           | 21      | 22      | 8       |  | 33          | 65      | 26      | 19      |  | 19         | 23      | 18      | 20      |  | 148          | 231     | 245     | 189     |  | 220     | 350     | 311     | 23      |  |
| January.....   | 23           | 45      | 26      | 28      |  | 24          | 53      | 37      | 64      |  | 6          | 10      | 5       | 13      |  | 106          | 232     | 154     | 199     |  | 159     | 340     | 227     | 30      |  |
| February.....  | 32           | 39      | 33      | 25      |  | 56          | 62      | 50      | 10      |  | 11         | 8       | 4       | 7       |  | 243          | 212     | 257     | 50      |  | 343     | 321     | 344     | 9       |  |
| March.....     | 42           | 31      | 36      | 25      |  | 77          | 75      | 74      | 59      |  | 21         | 19      | 16      | 20      |  | 276          | 247     | 285     | 191     |  | 419     | 379     | 421     | 29      |  |
| April.....     | 38           | 31      | 28      | 32      |  | 63          | 64      | 78      | 72      |  | 23         | 26      | 20      | 23      |  | 210          | 285     | 208     | 344     |  | 325     | 402     | 416     | 32      |  |
| May.....       | 24           | 26      | 27      | 17      |  | 67          | 50      | 60      | 57      |  | 28         | 24      | 25      | 24      |  | 227          | 316     | 261     | 204     |  | 345     | 415     | 376     | 30      |  |
| June.....      | 12           | 16      | 16      | ..      |  | 50          | 44      | 44      | 1       |  | 18         | 13      | 30      | 23      |  | 240          | 256     | 257     | 156     |  | 331     | 392     | 347     | 23      |  |
| July.....      | 12           | 4       | 6       | 5       |  | 49          | 23      | 27      | 33      |  | 17         | 23      | 22      | 21      |  | 246          | 233     | 226     | 161     |  | 314     | 283     | 281     | 22      |  |
| August.....    | 3            | 10      | ..      | ..      |  | 48          | 51      | 4       | ..      |  | 12         | 15      | 8       | ..      |  | 220          | 249     | 177     | ..      |  | 218     | 428     | 198     | ..      |  |
| Total.....     | 219          | 254     | 206     | ..      |  | 574         | 619     | 531     | ..      |  | 218        | 233     | 216     | ..      |  | 2654         | 2852    | 293     | ..      |  | 3675    | 4058    | 3887    | ..      |  |

## DEPARTED FOR

| MONTHS.        | NEW ORLEANS. |         |         |         |     | PITTSBURGH. |         |         |         |     | ST. LOUIS. |         |         |         |      | OTHER PORTS. |         |         |         |      | TOTAL.  |         |         |         |    |
|----------------|--------------|---------|---------|---------|-----|-------------|---------|---------|---------|-----|------------|---------|---------|---------|------|--------------|---------|---------|---------|------|---------|---------|---------|---------|----|
|                | '51-'52      | '52-'53 | '53-'54 | '54-'55 |     | '51-'52     | '52-'53 | '53-'54 | '54-'55 |     | '51-'52    | '52-'53 | '53-'54 | '54-'55 |      | '51-'52      | '52-'53 | '53-'54 | '54-'55 |      | '51-'52 | '52-'53 | '53-'54 | '54-'55 |    |
| September..... | 7            | 15      | 4       | ..      | 14  | 35          | 46      | ..      | 17      | 27  | 27         | 8       | ..      | ..      | 202  | 245          | 260     | 107     | 240     | 922  | 337     | 11      | ..      | ..      | .. |
| October.....   | 3            | 3       | 1       | ..      | 24  | 25          | 21      | ..      | 17      | 28  | 32         | 30      | 20      | ..      | 203  | 209          | 226     | 121     | 218     | 259  | 281     | 14      | ..      | ..      | .. |
| November.....  | 26           | 27      | 37      | 11      | 37  | 68          | 61      | 8       | 8       | 26  | 37         | 20      | 20      | ..      | 246  | 229          | 257     | 159     | 336     | 347  | 387     | 19      | ..      | ..      | .. |
| December.....  | 16           | 45      | 27      | 18      | 32  | 54          | 42      | 18      | 8       | 19  | 12         | 19      | ..      | ..      | 145  | 235          | 237     | 170     | 201     | 354  | 318     | 25      | ..      | ..      | .. |
| January.....   | 23           | 47      | 32      | 34      | 19  | 40          | 30      | 54      | 3       | 16  | 3          | 29      | 19      | ..      | 195  | 232          | 199     | 204     | 236     | 245  | 264     | 33      | ..      | ..      | .. |
| February.....  | 39           | 37      | 29      | 12      | 52  | 53          | 44      | 17      | 19      | 14  | 13         | 9       | ..      | ..      | 224  | 236          | 275     | 51      | 334     | 340  | 361     | 8       | ..      | ..      | .. |
| March.....     | 37           | 23      | 21      | 22      | 68  | 68          | 58      | 66      | 36      | 33  | 40         | 46      | ..      | ..      | 260  | 260          | 297     | 187     | 401     | 384  | 416     | 31      | ..      | ..      | .. |
| April.....     | 28           | 21      | 16      | 11      | 66  | 58          | 72      | 69      | 33      | 34  | 31         | 52      | ..      | ..      | 216  | 299          | 303     | 196     | 343     | 390  | 422     | 32      | ..      | ..      | .. |
| May.....       | 25           | 16      | 18      | 12      | 75  | 69          | 52      | 66      | 24      | 30  | 31         | 35      | ..      | ..      | 240  | 313          | 263     | 201     | 444     | 408  | 364     | 31      | ..      | ..      | .. |
| June.....      | 5            | 4       | 7       | 5       | 59  | 55          | 36      | 19      | 19      | 29  | 35         | 24      | ..      | ..      | 245  | 277          | 238     | 160     | 389     | 385  | 376     | 16      | ..      | ..      | .. |
| July.....      | 14           | 4       | 4       | 4       | 39  | 15          | 16      | 30      | 16      | 24  | 21         | 25      | ..      | ..      | 239  | 255          | 235     | 169     | 282     | 300  | 276     | 22      | ..      | ..      | .. |
| August.....    | 4            | 4       | ..      | ..      | 32  | 48          | ..      | ..      | 21      | 28  | 15         | ..      | ..      | ..      | 235  | 261          | 177     | ..      | 282     | 340  | 193     | ..      | ..      | ..      | .. |
| Total.....     | 336          | 250     | 197     | ..      | 498 | 567         | 495     | ..      | 241     | 288 | 275        | ..      | ..      | ..      | 2536 | 3041         | 2967    | ..      | 3611    | 4113 | 3934    | ..      | ..      | ..      | .. |



## COMPARATIVE EXPORTS OF CINCINNATI FOR FIVE YEARS.—CLASSIFYING THE ARTICLES AND SHOWING THE RATIO OF INCREASE.

| ARTICLES.                                         | Years 1849-'50. | Years 1853-'54. | Ratio of Increase. |
|---------------------------------------------------|-----------------|-----------------|--------------------|
| <b>1. Products of Animals.</b>                    |                 |                 |                    |
| Beef.....                                         | 27,699 bbls.    | 38,514 bbls.    | 39 pr. ct          |
| Butter.....                                       | 29,213 kegs.    | 59,610 "        | 100 "              |
| Cheese.....                                       | 87,142 boxes    | 139,899 boxes.  | 60 "               |
| Candles.....                                      | 67,445 "        | 152,068 "       | 125 "              |
| Cattle.....                                       | 30 head.        | 12,042 head.    | 37,500 "           |
| Grease.....                                       | 7,597 bbls.     | 15,694 lbs.     | 100 "              |
| Horses.....                                       | 468 head.       | 2,078 head.     | 350 "              |
| Lard.....                                         | 366,127 kegs    | 369,766 kegs.   | " "                |
| Jard Oil.....                                     | 16,984 bbls.    | 47,276 bbls.    | 200 "              |
| Pork & Bacon                                      | 291,364 bbls.   | 337,892 "       | 16 "               |
| Soap.....                                         | 17,113 boxes    | 39,645 boxes.   | 130 "              |
| Tallow.....                                       | 4,311 bbls.     | 8,162 bbls.     | 100 "              |
| <b>2. Grain, &amp; Products of Grain, &amp;c.</b> |                 |                 |                    |
| Corn.....                                         | 57,248 sacks    | 39,426 sacks.   | decrease           |
| Corn Meal.....                                    | 1,179 bbls.     | 407 bbls.       | " "                |
| Flour.....                                        | 98,908 "        | 332,778 "       | 230 pr. ct         |
| Hay.....                                          | 562 bales.      | 780 bales       | 40 "               |
| Oats.....                                         | 5,033 sacks.    | 3,773 sacks.    | decrease.          |
| Potatoes.....                                     | 5,283 bbls.     | 7,295 bbls      | 40 pr. ct          |
| Seeds.....                                        | 2,861 "         | 17,270 "        | 500 "              |
| Whisky.....                                       | 179,540 "       | 249,612 "       | 40 "               |
| Apples.....                                       | 3,519 "         | 8,439 "         | 140 "              |
| Beans.....                                        | 2,496 "         | 3,698 "         | 50 "               |
| <b>3. Groceries, &amp; Incidentals</b>            |                 |                 |                    |
| Sugar.....                                        | 24,204 hhds     | 62,744 hhds.    | 160 pr. ct         |
| Molasses.....                                     | 25,878 bbls.    | 63,381 bbls     | 150 "              |
| Coffee.....                                       | 22,030 sacks.   | 48,634 sacks    | 120 "              |
| Salt.....                                         | 37,800 bbls.    | 67,717 bbls.    | 80 "               |
| Liquors.....                                      | 11,789 "        | 48,115 "        | 300 "              |
| <b>4. Made and Incidentals</b>                    |                 |                 |                    |
| Merchandise                                       | 615,641 pkgs    | 1,208,530 pkgs  | 100 pr. ct         |
| "                                                 | 11,109 tons.    | 12,444 tons.    | 10 "               |
| Produce.....                                      | 10,337 pkgs     | 98,736 pkgs     | 800 "              |
| Wool.....                                         | 332,741 lbs.    | 970,043 lbs.    | 200 "              |
| <b>5. Man's &amp; Incidentals</b>                 |                 |                 |                    |
| Cooperage.....                                    | 73,637 pieces.  | 172,849 pieces. | 135 pr. ct         |
| Iron.....                                         | 99,312 " bbls   | 402,250 " bbls  | 350 "              |
| "                                                 | 5,677 tons.     | 18,323 tons.    | 200 "              |
| Manufacture                                       | 58,810 pieces   | 381,972 pieces. | 520 "              |
| Tobacco.....                                      | 6,905 boxes     | 30,741 boxes.   | 330 "              |
| "                                                 | 4,924 hhds.     | 12,723 hhds     | 150 "              |
| Castings.....                                     | 54,399 pieces   | 159,085 pieces  | 200 "              |
| "                                                 | 2,385 tons.     | 2,974 "         | 25 "               |

Note.—Whenever it was possible, the articles in the above table have been reduced to one denomination. Thus, the hogheads and pounds of Pork have been reduced to barrels; and the barrels of Sugar to hogheads. The reduction may not, in all instances, be exact, but, as the principal object was to establish a proportion, there is no sum which will materially affect the result.

## Results of the Above Table.

1. The above table proves that the advance in the Exports of Cincinnati in five years only, has been more than 100 per cent. The only exception to this is in the case of grain and vegetable products, exported in gross; but, it must be observed, that the great mass of grain raised in the region of country commercially represented by Cincinnati, is really exported in the shape of meats, oils, and grease, the products of animals. Then, the value of the animal products exported in 1853-'54 exceeded those exported in 1849-'50, by 100 per cent; and, in this manner, the increased amount of corn, oats, and grass was carried off.

2. We call attention to the vast increase in the Grocery Trade. The value of Sugar, Coffee, and Foreign Liquors exported from Cincinnati in 1853-'54, exceeds that of five years before, by at least 150 per cent—that is, an increase of 30 per cent per annum! In less than ten years, at this rate, Cincinnati will be the largest distributing market for Sugar, Coffee, and Liquors in the United States; and as the new country to be brought within its influence by the Southern railroads is very great—such a result is highly probable.

3. Increase in the export of manufactured articles exceeds that in any other branch of trade. Then the increase in the export of Iron is fully equal to 300 per cent. The increase in the export of castings is 200 per cent. So of all other articles of manufacture. In the aggregate, the manufactures of Cincinnati, increased, at least, 150 per cent, in four years. This increase is astonishing, and we hazard nothing in saying, that with the exception of small places, which spring up in a year or two,—it is altogether unequalled.

It will thus be seen, from the foregoing table, that if Cincinnati has grown rapidly in population, it has grown more rapidly in trade and manufactures.

Its commerce is built on the substantial foundation of a country, a people, and a domestic production—capable of sustaining, and of continuing this rapid increase, through many years. In fact, its trade is but now beginning to feel the great power of vastly extended commercial lines, of an immense railway system, and of an agricultural and mining country unsurpassed.

## EXPORTS FROM CINCINNATI.

For five years, commencing September 1st, and ending August 31st, each year.

| ARTICLES.             | '50-'51 | '51-'52 | '52-'53 | '53-'54 | '54-'55 |
|-----------------------|---------|---------|---------|---------|---------|
| Apples, green, brls   | 8064    | 7223    | 6528    | 8239    | 3427    |
| Alcohol.....          | 5035    | 7607    | 9669    | 18890   | 19566   |
| Beef.....             | 19937   | 20015   | 26882   | 21054   | 17584   |
| Do tcrs.....          | 9355    | 9033    | 17315   | 7640    | 13977   |
| Beans, brls.....      | 1832    | 1611    | 3925    | 3698    | 1247    |
| Brooms, doz.....      | 5735    | 7394    | 11146   | 15401   | 18275   |
| Butter, brls.....     | 3253    | 3904    | 3853    | 3903    | 1300    |
| Do frk & kgs.....     | 36185   | 31345   | 42316   | 41595   | 24196   |
| Bran, etc., sks.....  | 5759    | 10543   | 9996    | 15495   | 11456   |
| Bagging, pcs.....     | 8212    | 12918   | 14057   | 6109    | 2485    |
| Corn, sks.....        | 20137   | 51231   | 59132   | 39427   | 64944   |
| Corn Meal, brls.....  | 2148    | 928     | 345     | 407     | 2772    |
| Cheese, cks.....      | 25      | 71      | 49      | 23      | 4       |
| Do boxes.....         | 121756  | 150688  | 143056  | 139728  | 102352  |
| Candles.....          | 113412  | 121737  | 138799  | 152068  | 139191  |
| Cattle, head.....     | 440     | 1840    | 2631    | 12042   | 10285   |
| Cotton, bales.....    | 5132    | 8810    | 12098   | 15445   | 10021   |
| Coffee, sks.....      | 36158   | 43654   | 67122   | 48634   | 42283   |
| Cooperage, pcs.....   | 63084   | 64274   | 103858  | 17249   | 108105  |
| Eggs, brls.....       | 7258    | 9160    | 8779    | 6424    | 5014    |
| Flour, brls.....      | 390131  | 405211  | 312441  | 332778  | 199276  |
| Feathers, sks.....    | 4095    | 7876    | 8510    | 8594    | 7319    |
| Fruit, dried, bush    | 17400   | 6413    | 18851   | 32003   | 13929   |
| Grease, brls.....     | 4426    | 4732    | 6110    | 15694   | 9413    |
| Grass Seed.....       | 283     | 7587    | 8313    | 14275   | 7330    |
| Horses, head.....     | 599     | 944     | 1772    | 2078    | 1630    |
| Hay, bales.....       | 638     | 554     | 3918    | 780     | 5706    |
| Hemp.....             | 3112    | 3616    | 3098    | 6190    | 2918    |
| Hides, lbs.....       | 48779   | 142823  | 29448   | 6815    | 44035   |
| Hides, num.....       | 12438   | 31755   | 36342   | 36352   | 34241   |
| Iron, pcs.....        | 108458  | 172409  | 222119  | 338986  | 69481   |
| Do tons.....          | 44110   | 39386   | 55841   | 62373   | 63716   |
| Do bbls.....          | 9776    | 11329   | 14246   | 18322   | 11978   |
| Lard, brls.....       | 80991   | 47862   | 42652   | 57084   | 43799   |
| Do kgs.....           | 71300   | 115845  | 98650   | 84346   | 62806   |
| Lard Oil, brls.....   | 26110   | 24850   | 31580   | 47276   | 43595   |
| Linseed Oil.....      | 7521    | 9877    | 6659    | 6409    | 3454    |
| Molasses.....         | 25049   | 48366   | 65066   | 63891   | 46150   |
| Oat Cake, tons.....   | 663     | 1801    | 3759    | 1830    | 778     |
| Oats, sks.....        | 11707   | 2418    | 6397    | 3772    | 42282   |
| Potatoes, brls.....   | 19823   | 23844   | 13705   | 7285    | 10399   |
| Pork & Bacon, hhds    | 30220   | 49303   | 47500   | 49230   | 42169   |
| Do tcrs.....          | 20762   | 34398   | 53153   | 51778   | 40515   |
| Do brls.....          | 123086  | 131560  | 135707  | 134939  | 104275  |
| Do bxs.....           | 2974    | 2372    | 6336    | 18806   | 2574    |
| Do bulk, bbls.....    | 173853  | 331242  | 216887  | 193846  | 673054  |
| Rope, &c, pkgs.....   | 6273    | 9365    | 14897   | 10340   | 8909    |
| Soap, bxs.....        | 21553   | 28083   | 37036   | 39645   | 34247   |
| Sheep, head.....      | 460     | 45      | 1052    | 1014    | 1650    |
| Sugar, hhds.....      | 13000   | 20360   | 31615   | 44119   | 32132   |
| Salt, brls.....       | 28585   | 27022   | 32870   | 37251   | 36333   |
| Do sks.....           | 144     | 16314   | 25136   | 30466   | 9606    |
| Seed, Flax, brls..... | 713     | 5200    | 3843    | 2945    | 1121    |
| Sundry maise, pkg     | 34918   | 656741  | 105745  | 128350  | 81625   |
| Do do tons.....       | 10350   | 1124    | 6114    | 12144   | 8466    |
| Do Liquors, brls      | 19297   | 49348   | 53708   | 48015   | 25714   |
| Do Manfrs, pcs.....   | 22103   | 66200   | 161639  | 331972  | 347563  |
| Do Prod'ce, pkgs      | 13858   | 42333   | 48418   | 98736   | 141925  |
| Starch, boxes.....    | 14107   | 18293   | 26445   | 31700   | 24520   |
| Tallow, brls.....     | 5927    | 3039    | 467     | 8162    | 6893    |
| Tobacco, kgs & bxs    | 18345   | 24761   | 31867   | 30741   | 26077   |
| Do bbls.....          | 2536    | 10821   | 8941    | 9553    | 4968    |
| Do hales.....         | 180     | 630     | 1341    | 3370    | 3307    |
| Vinegar, brls.....    | 3756    | 5965    | 8254    | 6504    | 8643    |
| Whisky, brls.....     | 231324  | 276124  | 257616  | 249612  | 243551  |
| Wool, bales.....      | 2725    | 3404    | 9432    | 6439    | 6435    |
| Do lbs.....           | 4536    | 2972    | 1586    | 14193   | 4442    |
| White Lead, kegs      | 50857   | 65614   | 7566    | 74382   | 55218   |
| Castings, pcs.....    | 36386   | 33942   | 6747    | 159085  | 80263   |
| Do tons.....          | 1121    | 1629    | 309     | 2374    | 2073    |

## Average Prices

OF FLOUR AND WHEAT, for each month during the last three years.

| MONTHS.        | FLOUR. |        |        | WHEAT. |          |        |
|----------------|--------|--------|--------|--------|----------|--------|
|                | 52-53. | 53-54. | 54-55. | 52-53. | 53-54.   | 54-55. |
| September..... | 3.35   | 4.91   | 7.20   | 60     | 88       | 1.42   |
| October.....   | 3.27   | 5.29   | 6.90   | 60     | 96 1/2   | 1.32   |
| November.....  | 3.72   | 5.19   | 7.69   | 66     | 1.04     | 1.46   |
| December.....  | 4.10   | 5.27   | 7.55   | 75     | 1.02 1/2 | 1.62   |
| January.....   | 4.30   | 5.59   | 7.58   | 80     | 1.14     | 1.50   |
| February.....  | 4.06   | 6.72   | 8.17   | 77     | 1.33 1/2 | 1.63   |
| March.....     | 3.97   | 6.34   | 8.20   | 75     | 1.25     | 1.67   |
| April.....     | 3.68   | 6.69   | 9.52   | 75     | 1.35     | 1.92   |
| May.....       | 3.76   | 7.76   | 9.33   | 74     | 1.60     | 1.92   |
| June.....      | 4.00   | 7.56   | 9.14   | 84     | 1.41     | 1.74   |
| July.....      | 3.88   | 7.04   | 8.00   | 80     | 1.04     | 1.12   |
| August.....    | 4.05   | 7.30   | 6.93   | 80     | 1.31     | 1.25   |

## Average Prices

OF PRIME LARD AND BACON HAMS, for each month during the last three years.

| MONTHS.        | PRIME LARD |        |        | PLAIN HAMS. |        |        |
|----------------|------------|--------|--------|-------------|--------|--------|
|                | 52-53.     | 53-54. | 54-55. | 52-53.      | 53-54. | 54-55. |
| September..... | 11 1/2     | 11 1/2 | 10 1/2 | ..          | 10 1/2 | ..     |
| October.....   | 11 1/2     | 11 1/2 | 10 1/2 | ..          | 10 1/2 | 11 1/2 |
| November.....  | 10 1/2     | 8 1/2  | 9      | ..          | 11     | ..     |
| December.....  | 10 1/2     | 8 1/2  | 9      | ..          | ..     | ..     |
| January.....   | 10 1/2     | 8 1/2  | 9      | ..          | ..     | ..     |
| February.....  | 9 1/2      | 9 1/2  | 9 1/2  | 9           | 8 1/2  | 8 1/2  |
| March.....     | 9 1/2      | 9 1/2  | 9 1/2  | 9           | 8 1/2  | 8 1/2  |
| April.....     | 9 1/2      | 9 1/2  | 10 1/2 | 8 1/2       | 8 1/2  | 9 1/2  |
| May.....       | 10 1/2     | 10     | 11     | 9           | 8      | 8 1/2  |
| June.....      | 10 1/2     | 10     | 11 1/2 | 8 1/2       | 8      | 10     |
| July.....      | 10 1/2     | 10 1/2 | 11 1/2 | 8 1/2       | 8      | 10     |
| August.....    | 10 1/2     | 10 1/2 | 11 1/2 | 8 1/2       | 8 1/2  | 11     |

## VALUE OF PRINCIPAL IMPORTS

Into the Port of Cincinnati for the years ending August 31st, 1854 and 1855.

| ARTICLES.           | TOTAL QUANTY | A'V'G PRICE | TOTAL VALUE. | TOTAL LAST YR. |
|---------------------|--------------|-------------|--------------|----------------|
| Apples, gr., brls   | 15,971       | 2 10        | 33,539       | 55,076         |
| Beef.....           | 1,766        | 11 50       | 20,309       | 20,261         |
| Do.....             | 4,608        | 17 00       | 74,338       | 928            |
| Bagging.....        | 85           | 2 80        | 238          | 481            |
| Barley.....bush     | 204,224      | 1 30        | 265,491      | 200,575        |
| Beans.....          | 17,173       | 2 50        | 42,932       | 21,832         |
| Butter.....brls     | 10,185       | 32 60       | 331,931      | 705,280        |
| Do frk's & kgs      | 7,132        | 16 00       | 114,112      | 175,380        |
| Blooms.....         | 4,699        | 65 00       | 299,435      | 363,750        |
| Bran, &c.....       | 71,416       | 90          | 64,274       | 42,279         |
| Candles.....        | 1,145        | 7 60        | 8,502        | 5,705          |
| Corn.....bush       | 845,579      | 65          | 549,626      | 253,454        |
| Corn Meal.....      | 42,190       | 70          | 29,533       | 15,694         |
| Cider.....brls      | 829          | 4 60        | 3,730        | 4,902          |
| Cheese.....         | 71           | 21 00       | 1,638        | 1,027          |
| Do.....             | 183,379      | 3 30        | 605,150      | 704,919        |
| Cotton.....brls     | 15,107       | 44 00       | 664,708      | 958,599        |
| Coffee.....         | 114,113      | 18 00       | 2,064,034    | 1,462,800      |
| Coffish.....        | 1,274        | 31 00       | 39,494       | 43,089         |
| Cooperage.....      | 126,539      | 75          | 94,904       | 197,183        |
| Do.....             | 12,104       | 8 00        | 96,832       | 117,060        |
| Flour.....brls      | 342,762      | 8 15        | 2,793,510    | 2,693,024      |
| Feathers.....       | 7,202        | 26 00       | 287,252      | 207,354        |
| Fish, sundr.....    | 13,000       | 12 00       | 156,720      | 200,717        |
| Do k & kts          | 5,266        | 3 50        | 18,431       | 19,344         |
| Fruits, dried, bsh  | 58,047       | 2 00        | 116,094      | 80,465         |
| Grease.....brls     | 5,236        | 16 25       | 85,095       | 102,968        |
| Glass.....          | 41,655       | 2 50        | 104,087      | 91,917         |
| Do ware.....        | 28,400       | 4 60        | 130,014      | 235,127        |
| Hemp.....bdls bls   | 8,671        | 23 00       | 199,433      | 352,770        |
| Hides, loose.....   | 31,605       | 2 75        | 86,628       | 112,737        |
| Hides, gr.....bshs  | 101,535      | 5           | 5,076        | 2,136          |
| Hay.....bales       | 37,914       | 2 65        | 100,472      | 48,060         |
| Herrings.....brls   | 10,624       | 60          | 6,374        | 5,546          |
| Hogs.....head       | 486,260      | 9 25        | 4,591,330    | 5,252,730      |
| Hops.....bales      | 4,014        | 45 00       | 180,630      | 214,860        |
| Iron & steel.....   | 505,492      | 1 00        | 505,492      | 608,648        |
| Do.....bdls         | 62,725       | 4 00        | 250,900      | 291,120        |
| Do.....tons         | 3,680        | 60 00       | 220,800      | 1,140,490      |
| Lead.....pigs       | 57,769       | 5 10        | 294,625      | 326,895        |
| Do.....kgs          | 53,650       | 2 50        | 1,073,060    | 1,445,756      |
| Do.....             | 44,100       | 4 50        | 66,735       | 78,000         |
| Leather.....bdls    | 17,753       | 12 00       | 213,036      | 194,890        |
| Lemons.....bxs      | 7,855        | 4 50        | 35,347       | 30,127         |
| Lime.....brls       | 62,913       | 1 00        | 62,913       | 69,623         |
| Liquors.....hhdls   | 2,295        | 156 00      | 358,020      | 460,200        |
| Mdx & sundr.....    | 853,915      | 30 00       | 30,020,940   | 25,385,700     |
| Mdx.....tons        | 2,323        | 620 00      | 1,440,260    | 3,008,400      |
| Molasses.....brls   | 56,237       | 9 00        | 606,133      | 691,440        |
| Do.....kgs          | 44,100       | 1 40        | 62,297       | 29,562         |
| Nails.....bshs      | 94,659       | 4 60        | 435,588      | 485,240        |
| Oil.....brls        | 8,345        | 32 00       | 267,040      | 314,384        |
| Oranges, bxs brls   | 13,239       | 5 00        | 66,195       | 28,985         |
| Oakum.....hals      | 3,463        | 17 00       | 58,871       | 65,126         |
| Oats.....bush       | 480,176      | 42          | 201,674      | 153,097        |
| Oil cake.....bsh    | 134,147      | 01          | 1,344        | 881            |
| Pork & Bacon.....   | 5,347        | 60 00       | 356,420      | 583,872        |
| Do.....             | 6,770        | 20          | 135,400      | 49,248         |
| Do.....brls         | 38,134       | 14 00       | 540,800      | 472,644        |
| Do.....bulk, bshs   | 18,551       | 54 06       | 1,013,092    | 1,085,850      |
| Potatoes.....brls   | 28,982       | 3 00        | 86,946       | 44,053         |
| Pig Metal.....tons  | 26,613       | 35 00       | 931,455      | 1,882,316      |
| Pum'to & Pep, bsh   | 2,235        | 15 00       | 33,525       | 62,610         |
| Rye.....bush        | 53,164       | 1 08        | 57,417       | 22,194         |
| Rosin, Tar & brls   | 13,654       | 3 50        | 47,289       | 60,603         |
| Raisins.....bxs     | 24,765       | 3 55        | 87,915       | 78,840         |
| Type, br & c, pr    | 1,132        | 1 15        | 1,291        | 31,381         |
| Rates.....          | 3,899        | 40 00       | 155,960      | 1,985,850      |
| Sugar.....hhdls     | 46,552       | 60 00       | 2,793,120    | 2,900,745      |
| Do.....brls         | 19,465       | 16 00       | 311,440      | 356,174        |
| Do.....bxs          | 2,697        | 32 50       | 87,552       | 70,047         |
| Seed, flax.....brls | 14,539       | 5 00        | 120,945      | 21,825         |
| Do grass.....       | 14,539       | 16 00       | 232,080      | 298,410        |
| Do hemp.....        | 1,505        | 6 00        | 9,030        | 2,460          |
| Do.....             | 72,100       | 15 00       | 1,081,500    | 66,283         |
| Do.....brls         | 74,323       | 2 75        | 206,388      | 272,496        |
| Shot.....kgs        | 2,583        | 23 50       | 60,700       | 60,436         |
| Tea.....pkgs        | 20,740       | 30 00       | 602,220      | 354,925        |
| Tobacco.....hhdls   | 5,203        | 90 00       | 468,270      | 723,496        |
| Do.....bls          | 2,312        | 8 50        | 19,652       | 21,823         |
| Do.....hxs & kgs    | 24,902       | 22 50       | 558,045      | 665,170        |
| Tallow.....brls     | 3,288        | 29 00       | 95,352       | 122,670        |
| Do.....             | 3,384        | 63 00       | 213,144      | 286,672        |
| Do.....bxts & cs    | 4,132        | 57 00       | 235,584      | 100,548        |
| Wheat.....bush      | 437,412      | 1 60        | 699,559      | 593,329        |
| Wool.....bales      | 5,999        | 30 00       | 179,970      | 173,555        |
| Whisky.....brls     | 27,165       | 12 00       | 325,980      | 2,281,344      |
| Yarns, cot., pkgs   | 7,052        | 1 60        | 11,282       | 10,318         |
| Yarns.....brls      | 65,741       | 20          | 13,148       | 20,858         |
| Lumber.....feet     | 72,000,000   | 1 15        | 980,000      | 1,200,000      |
| Do.....bush         | 10,369,000   | 19          | 1,969,300    | 983,770        |
| Shingles.....       | 30,000,000   | 3 60        | 108,000      | 123,600        |
| Staves, w'd & st'e  |              |             | 360,000      |                |
| Total.....          |              |             | \$67,095,741 | \$66,549,420   |



## IMPORTS INTO CINCINNATI.

For five years, commencing September 1st, and ending August 31st, each year.

| ARTICLES.              | '50 '51 | '51 '52 | '52 '53 | '53 '54 | '54 '55 |
|------------------------|---------|---------|---------|---------|---------|
| Apples, green, brls    | 16934   | 17182   | 19845   | 31479   | 15971   |
| Beef, .....            | 1101    | 1609    | 1118    | 1841    | 1766    |
| Beef, tcrs. ....       | 18      | 1145    | 295     | 58      | 4608    |
| Baking, pcs. ....      | .....   | 74      | 119     | 174     | 85      |
| Barley, bush. ....     | 111257  | 89994   | 235344  | 286596  | 204224  |
| Beans, bush. ....      | 21037   | 14137   | 14853   | 21332   | 17173   |
| Butter, brls. ....     | 8259    | 10303   | 16484   | 16842   | 10155   |
| Butter, frks & kgs     | 11043   | 13720   | 11331   | 11692   | 7132    |
| Brooms, tons. ....     | 2727    | 4036    | 3925    | 4836    | 4699    |
| Bran, & c, sks. ....   | 50976   | 131014  | 62629   | 65045   | 71416   |
| Candles, bxs. ....     | 696     | 653     | 2882    | 815     | 1145    |
| Corn, bush. ....       | 489199  | 653788  | 723334  | 745455  | 845579  |
| Corn Meal. ....        | 5608    | 8640    | 17357   | 31388   | 42190   |
| Cider, brls. ....      | 1047    | 874     | 1238    | 1634    | 829     |
| Cheese, cks. ....      | 74      | 46      | 103     | 52      | 78      |
| Cheese, bxs. ....      | 205144  | 241753  | 212337  | 216892  | 183379  |
| Cotton, bales. ....    | 7168    | 12776   | 16550   | 22513   | 15107   |
| Coffee, sks. ....      | 91177   | 95732   | 109138  | 91425   | 114113  |
| Codfish, drums. ....   | 448     | 431     | 1140    | 1389    | 1274    |
| Cooperage, pcs. ....   | 146691  | 135188  | 194655  | 197083  | 126539  |
| Eggs, boxes & brls     | 5856    | 10544   | 14853   | 15608   | 12104   |
| Flour, brls. ....      | 482772  | 511042  | 449059  | 427464  | 342772  |
| Feathers, sks. ....    | 2555    | 6716    | 10539   | 8631    | 7202    |
| Fish, sund. brls. .... | 19826   | 26076   | 22219   | 18247   | 13060   |
| Fish, kgs & kits. .... | 2894    | 1075    | 3935    | 6448    | 5206    |
| Fruit, dried, bush.    | 41824   | 24847   | 44515   | 73150   | 58047   |
| Grease, brls. ....     | 876     | 1986    | 3152    | 6623    | 5296    |
| Glass, boxes. ....     | 37099   | 44004   | 42963   | 36707   | 41635   |
| Glassware, pkgs. ....  | 23619   | 36602   | 31808   | 24646   | 26080   |
| Hemp, bds & bals       | 13254   | 1832    | 20079   | 11539   | 8672    |
| Hides, loose. ....     | 25132   | 54547   | 48808   | 38875   | 31505   |
| Hides, grn, lbs. ....  | 28424   | 54905   | 35178   | 42720   | 101535  |
| Hay, bales. ....       | 12691   | 9270    | 6132    | 19424   | 37914   |
| Herring, boxes. ....   | 3832    | 5149    | 11488   | 11093   | 10624   |
| Hogs, head. ....       | 111494  | 160684  | 420594  | 535273  | 498360  |
| Hops, bales. ....      | 756     | 1591    | 2581    | 3591    | 7014    |
| Iron and Steel, pks    | 225039  | 194107  | 294401  | 338068  | 505382  |
| Do do bds. ....        | 68859   | 54078   | 66131   | 72730   | 69725   |
| Do do tons. ....       | 2570    | 10111   | 14124   | 14236   | 3690    |
| Lead, pigs. ....       | 59413   | 54733   | 57093   | 65359   | 57769   |
| Lard, brls. ....       | 36889   | 36047   | 51744   | 76094   | 53654   |
| Lard, kgs. ....        | 31087   | 32283   | 26159   | 19752   | 14831   |
| Leather, bds. ....     | 10389   | 11384   | 19689   | 18961   | 17753   |
| Lemons, boxes. ....    | 3377    | 4434    | 7138    | 6695    | 7855    |
| Lime, brls. ....       | 57537   | 64517   | 75745   | 87037   | 62513   |
| Liquors, bds & ps      | 1465    | 3182    | 4379    | 3940    | 2285    |
| Mdse & sun. pkgs       | 175938  | 458708  | 530586  | 846190  | 838915  |
| Do tons. ....          | 3370    | 1958    | 1102    | 5014    | 2323    |
| Molasses, brls. ....   | 61490   | 93132   | 115112  | 86430   | 56237   |
| Malt, bush. ....       | 21356   | 33220   | 43759   | 42646   | 44493   |
| Nails, kgs. ....       | 83761   | 64189   | 104159  | 101546  | 94689   |
| Oil, brls. ....        | 6764    | 8305    | 10507   | 11228   | 5345    |
| Oranges, bxs & bds     | 5902    | 4557    | 5854    | 5779    | 13239   |
| Oakum, bales. ....     | 1738    | 1843    | 2905    | 4071    | 3463    |
| Oats, bush. ....       | 164238  | 197868  | 283251  | 437423  | 480178  |
| Oil Cake, lbs. ....    | 194000  | 247400  | 14000   | 135000  | 134447  |
| Pork & Bacon, hds      | 6277    | 10333   | 15251   | 12164   | 5947    |
| Do do tcrs. ....       | 1183    | 1987    | 3550    | 2736    | 6770    |
| Do do brls. ....       | 31595   | 22501   | 39517   | 39357   | 38365   |
| Pork in bulk, lbs.     | 14631   | 16532   | 26989   | 27059   | 18551   |
| Potatoes, brls. ....   | 330     | 885     | 341     | 927     | 644     |
| Pig Metal, tons. ....  | 19649   | 20739   | 15555   | 35244   | 29892   |
| Pim'o and P'r, bags    | 16110   | 22605   | 30179   | 41807   | 26613   |
| Rye, bush. ....        | 2027    | 1425    | 5590    | 7174    | 2325    |
| Resin, & c, brls. .... | 44308   | 58318   | 33670   | 29592   | 53164   |
| Raisins, boxes. ....   | 12511   | 14484   | 19983   | 16161   | 13864   |
| Rope, T'e & c, pks     | 15648   | 28417   | 25433   | 22540   | 24765   |
| Rice, tcrs. ....       | 2077    | 3203    | 4173    | 4483    | 2510    |
| Sugar, hds. ....       | 4780    | 3782    | 5346    | 3242    | 3809    |
| Do brls. ....          | 22908   | 33924   | 49229   | 64461   | 46853   |
| Do do bxs. ....        | 18584   | 15237   | 24004   | 23441   | 19465   |
| Do do tons. ....       | 2612    | 2259    | 2115    | 2439    | 2697    |
| Seed, Flax, brls. .... | 20319   | 45074   | 51752   | 40550   | 24189   |
| Do Grass. ....         | 4104    | 10819   | 14946   | 19894   | 14505   |
| Do Hemp. ....          | 68      | 304     | 1040    | 984     | 639     |
| Salt, sks & 8. ....    | 50474   | 91312   | 71628   | 66372   | 72105   |
| Do brls. ....          | 79358   | 58020   | 78086   | 90832   | 74862   |
| Shot, kgs. ....        | 1545    | 1682    | 1144    | 2859    | 4815    |
| Tea, pkgs. ....        | 7821    | 12810   | 23279   | 14199   | 20074   |
| Tobacco, hds. ....     | 3701    | 11460   | 7881    | 8744    | 5209    |
| Do bales. ....         | 1697    | 1946    | 2478    | 3118    | 2312    |
| Do bxs & kgs. ....     | 19945   | 23060   | 48201   | 30235   | 24802   |
| Tallow, brls. ....     | 3652    | 5930    | 3463    | 4290    | 3288    |
| Wines, brls & ½ cks    | 9401    | 4482    | 5563    | 7544    | 3384    |
| Do bks & bxs. ....     | 5080    | 1632    | 9440    | 8291    | 4815    |
| Wheat, bush. ....      | 385660  | 377037  | 349649  | 408094  | 437412  |
| Wool, bales. ....      | 1866    | 4562    | 6748    | 4953    | 5999    |
| Whisky, brls. ....     | 240449  | 272788  | 280317  | 255349  | 272165  |
| Cotton Yarn, pgs. .... | 5577    | 10836   | 7362    | 6879    | 7052    |
| Do lbs. ....           | 124594  | 167002  | 115841  | 114767  | 65741   |

[NOTE.—In the above table, the figures for the years prior to 1852-'53 embrace only the number of Hogs received by public conveyance. Since that time the number driven to market, during the packing season, have been added.]

## Average Prices

Of Prime New Orleans MOLASSES and Prime Western Reserve CHEESE, for each month during the last three years.

| MONTHS.        | N. O. MOLASSES. |        |        |    | W. R. CHEESE. |        |        |  |
|----------------|-----------------|--------|--------|----|---------------|--------|--------|--|
|                | 52-53.          | 53-54. | 54-55. |    | 52-53.        | 53-54. | 54-55. |  |
| September..... | 33              | 24½    | 19     | 6½ | 8             | 10     |        |  |
| October.....   | 28              | 24½    | 20     | 7  | 9             | 10     |        |  |
| November.....  | 28              | 24½    | 20     | 8½ | 9             | 10     |        |  |
| December.....  | 27½             | 24½    | 20½    | 9½ | 9             | 10     |        |  |
| January.....   | 27½             | 24½    | 21     | 9½ | 9             | 10     |        |  |
| February.....  | 27½             | 24½    | 21     | 9½ | 9             | 10     |        |  |
| March.....     | 27½             | 24½    | 21     | 9½ | 9             | 10     |        |  |
| April.....     | 27½             | 24½    | 21     | 9½ | 9             | 10     |        |  |
| May.....       | 25½             | 22     | 34     | 7½ | 8½            | 9½     |        |  |
| June.....      | 25              | 21     | 34½    | 7  | 8½            | 8      |        |  |
| July.....      | 22              | 20     | 36½    | 7  | 8½            | 8½     |        |  |
| August.....    | 22              | 20     | 38½    | 7½ | 9½            | 8½     |        |  |

## RATES OF FREIGHT.

From Cincinnati to New Orleans and Pittsburgh, at the close of each week for the Year ending August 31, 1855.

|              |    | To New Orleans. |              |                | To Pittsburgh. |                    |    |
|--------------|----|-----------------|--------------|----------------|----------------|--------------------|----|
|              |    | Flour<br>bri.   | Pork<br>bri. | Whisky<br>bri. | Whisky<br>bri. | Freight<br>100 lbs |    |
| September 13 | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| Do 20        | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| Do 27        | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| October 4    | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| Do 11        | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| Do 18        | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| Do 25        | Do | ..              | ..           | 300            | ..             | ..                 | .. |
| November 1   | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| Do 8         | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| Do 15        | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| Do 22        | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| December 6   | Do | ..              | ..           | 225            | 300            | 125                | 40 |
| Do 13        | Do | ..              | ..           | 200            | 300            | ..                 | .. |
| Do 20        | Do | ..              | ..           | ..             | 350            | ..                 | .. |
| Do 27        | Do | 100             | 125          | 150            | 100            | 30                 | .. |
| January 3    | Do | 50              | 75           | 100            | 65             | 20                 | .. |
| Do 10        | Do | 50              | 75           | 90             | 65             | 30                 | .. |
| Do 17        | Do | 50              | 75           | 90             | 60             | 20                 | .. |
| Do 24        | Do | 50              | 75           | 90             | 50             | 15                 | .. |
| Do 31        | Do | 50              | 75           | 90             | 50             | 15                 | .. |
| February 7   | Do | ..              | ..           | ..             | ..             | ..                 | .. |
| Do 14        | Do | ..              | 70           | 90             | 65             | 30                 | .. |
| Do 21        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 28        | Do | 50              | 70           | 90             | 60             | 15                 | .. |
| March 5      | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 12        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 19        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 26        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| April 2      | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 9         | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 16        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 23        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 30        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| May 7        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 14        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 21        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 28        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| June 4       | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 11        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 18        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 25        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| July 2       | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 9         | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 16        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 23        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 30        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| August 6     | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 13        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 20        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 27        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| September 3  | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 10        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 17        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 24        | Do | 50              | 70           | 90             | 65             | 20                 | .. |
| Do 31        | Do | 50              | 70           | 90             | 65             | 20                 | .. |

## NAMES AND TONNAGE OF

## STEAMBOATS AND BARGES.

Arrived at the Port of Cincinnati, from Sept. 1st, 1854, to Sept. 1st, 1855.

| Names.                 | Tonnage. | Names.                 | Tonnage. |
|------------------------|----------|------------------------|----------|
| Advance.....           | 176      | La Belle.....          | 137      |
| A. L. Davis.....       | 146      | Lake Erie No. 2.....   | 161      |
| Aurilla Wood.....      | 150      | Landis.....            | 392      |
| Atlanta.....           | 142      | Lucie May.....         | 179      |
| Arabia.....            | 278      | Lebanon.....           | 233      |
| Americus.....          | 235      | Laclede.....           | 195      |
| Altamont.....          | 292      | Louisia.....           | 110      |
| Altoona.....           | 181      | Manfield.....          | 225      |
| Argyle.....            | 389      | Minerva.....           | 192      |
| Allegheny.....         | 520      | Montgomery.....        | 275      |
| Ambassador.....        | 367      | Midas.....             | 307      |
| Arctic.....            | 346      | Mediator.....          | 422      |
| Adriatic.....          | 492      | Memphis No. 2.....     | 319      |
| Alma.....              | 328      | Moses Greenwood.....   | 300      |
| Amazon.....            | 433      | Monarch.....           | 430      |
| A. G. Mason.....       | 185      | May Flower.....        | 850      |
| Albemarle.....         | 193      | Madison.....           | 421      |
| Argonaut.....          | 250      | Mattie Wayne.....      | 300      |
| Ariel.....             | 170      | Monongahela.....       | 387      |
| A. B. Chambers.....    | 415      | Minnesota Belle.....   | 244      |
| Ben Cousin.....        | 161      | Monongahela Belle..... | 70       |
| Bostona.....           | 375      | Madona.....            | 105      |
| Brazil.....            | 211      | Magnolia.....          | 145      |
| Belle Golding.....     | 205      | Moses McLellan.....    | 406      |
| Bridge City.....       | 198      | Nettie Miller.....     | 146      |
| Ben Franklin.....      | 230      | Norma.....             | 398      |
| Buckeye Belle.....     | 197      | Northern.....          | 433      |
| Boone.....             | 250      | New World.....         | 280      |
| Ben Bolt.....          | 269      | Natchez.....           | 838      |
| Bay City.....          | 234      | Nebraska.....          | 756      |
| Baltimore.....         | 660      | N. W. Thomas.....      | 419      |
| Buckeye.....           | 400      | New St. Paul.....      | 226      |
| Buckeye State.....     | 500      | New York.....          | 296      |
| Ben West.....          | 260      | North Star.....        | 276      |
| Black Diamond.....     | 167      | Nashobah.....          | 137      |
| Billow.....            | 150      | Ocean Wave.....        | 256      |
| Cuba.....              | 176      | Ohio.....              | 348      |
| City Belle.....        | 223      | Ohio No. 2.....        | 197      |
| Challenge.....         | 260      | Ohio Belle.....        | 472      |
| City of Knoxville..... | 77       | Orb.....               | 266      |
| City of Wheeling.....  | 486      | Parthenia.....         | 151      |
| Castle Garden.....     | 174      | Prairie Rose.....      | 237      |
| Cabin.....             | 208      | Prairie City.....      | 250      |
| Conewago.....          | 192      | Progress.....          | 212      |
| Chicago.....           | 268      | Philadelphia.....      | 584      |
| Charleston.....        | 235      | Pennsylvania.....      | 655      |



# Railroad Record.

**H. D. MANSFIELD, - - - Editor.**  
**W. WRIGHTSON, { Associate Editors.**  
**J. A. JAMES, {**

**CINCINNATI:**

THURSDAY MORNING,.....OCTOBER 4, 1855.

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## Railroad Record

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Subscriptions and communications addressed to

T. WRIGHTSON & CO.,  
 Publishers, and Proprietors,

Public Sales of the Alternate Sections of  
 Land remaining to the United States along  
 the Cairo and Fulton Railroad and its  
 Branches.

GENERAL LAND OFFICE, }  
 August 29th, 1855. }

To His Excellency,

ELIAS N. CONWAY, Governor of  
 Arkansas, at Little Rock.

SIR:—I have the honor to acknowledge the receipt of your communication of the 13th instant, addressed to the President, requesting, for reasons therein mentioned, that the lands remaining to the United States along the Cairo and Fulton railroad and its branches in Arkansas, may be thrown into market at the earliest possible day, which was referred, by the Secretary of the Interior, to this office on the 27th instant, for compliance with your request as early as practicable. In reply I have to state that as promised in my last letters to you, the routes of the road and its branches are being laid down on the township plats preparatory to the adjustment of the grant, and that no time will be lost in carrying out your wishes, and the order of the Department. It is not anticipated however, that the sales can take place earlier than the ensuing spring. For before the notice could be issued for the public sales allowing the shortest notice (three months) they would come on too late for this season.

I am very respectfully, your ob't serv't.,

THOS. A. HENDRICKS,  
 Commissioner.

### A WORD TO THE FARMER ON THE PRODUCTS OF HIS INDUSTRY.

The present year has been one of unusual fertility, abundant crops have repaid the labor of the husbandman, and the country, as a whole, has a large surplus of all the products of the farm. It becomes, then, a serious question to the farmer what he shall do with his surplus gains. Our agriculturists, as a class, are not given to prodigality; they know too well the value of what they get, and the worth of the "sweat of their brows" to waste it in foolish and reckless expenditures. The inquiry with them is how shall they dispose of it to best provide means to sustain their old age, or provide a dowry for their children: and in this inquiry their attention is naturally directed to investment in landed estate. They derive their wealth and substance from the products of the earth, and hence they are very apt to suppose that landed estates are the only real property that possesses intrinsic value. And in some measure they are right. The basis of wealth must be the productions of the soil, and the labor of man; and as the soil alone rewards labor with the necessities of life, the soil itself must possess an intrinsic value in a far different sense from the bubble of golden coin. But these are primitive ideas, such as modern financiers, and permit us to say, modern farmers little deal in. The dollar, the "almighty dollar," is the standard of intrinsic value, and property is worth just what it will bring of this potent agent in market. Whether this is right or not, matters little, such is the state of things as we find them. We say, then, that landed estate is not now the only property.

Next to landed estate, the attention of the farmer is directed to loans, either on real estate security or to banks, it is rare that they take business paper. And lastly, a few, and but few, look to stock investments. Now let us compare these different investments of the farmer, and see how they pay, and what the proportion of gain and happiness they secure.

First as most easily disposed of, Loans on real estate or to banks. These under ordinary circumstances, leaving out of consideration frauds in securing mortgages and insolvency of banking institutions, are safe investments, and pay from four to seven per cent. But this is the extent of gain they can give. The principal receives no further increase.

Next in order we take investments in landed estate. What are their profits. There are two classes of investments, one in property in the settled states, which may be denominated *home* investments, and the other in unsettled states or wild lands. The profits of each of these we shall consider apart from railroad influence, as we now assume that *all* feel alike about encouraging railroads. The profits of the home investment are simply what the farm will pay, and its natural increase in value. Farming property on an

average pays from four to six per cent.: assume the average to be five per cent. The natural increase in the value of property may be assumed to be equal to the increase in population. This, in the ten years from 1840 to 1850, was thirty-five per cent. Thirty-five per cent. for ten years gives less than  $3\frac{1}{2}$  per cent. per annum, because increase is counted by compound interest. Three and a half per cent. increase added to five per cent. income, gives eight and a half per cent. as the legitimate gains from home investment in real estate.

Let us now consider the investment in wild lands. Wild lands apart from railroads (and if their possessors do not build these, others may not be expected to do so), increase but slowly and it is safe to say, that they will not more than double their value in twenty years. Now money at four per cent, interest being paid annually and added to principal, doubles itself in 18 years, and at 6 per cent in 12 years. Deduct from this the expenses of taxation, location, etc. and it will readily be seen that investments in wild lands, notwithstanding occasional instances to the contrary, even should they double in value in 10 years, are not as favorable to the farmer as home investments or loans to his neighbors. We are aware that this militates with general notions, but such we think would be found to be the experience of those who invested during the bank panic, nearly 20 years ago, if that experience could be collected, and such may be the experience of those who have invested in the railroad panic just past.

We come now to consider stock investments, and as we personally are more interested in railroads than in banks, mining insurance or other stocks, we shall confine our remarks principally to this variety. We have frequently shown that a fair increase in the value of settled lands consequent upon building a railroad near them, is \$15 per acre. Now this, where the farm is valued previously at \$20 per acre, is 75 per cent. Wheat forty miles from a railroad, is increased in value fifteen per cent. by bringing it to the track, and corn 30 per cent. Twenty per cent then may considered a safe average of the increase in the value of agricultural productions, by a new railroad near a farm, and 75 per cent the immediate increase in the value of the farm itself.

How then stands the account:

|                                                             |             |
|-------------------------------------------------------------|-------------|
| Loans, 4 to 6 per cent. average,.....                       | 6 per cent. |
| Wild Lands, 4 to 7 per cent. average,.....                  | 5 "         |
| Railroads in immediate neighborhood, (annual revenue,.....) | 20 "        |
| do. do. immediate increase in value,.....                   | 75 "        |

The advantages will thus be seen to be greatly in favor of railroad investments. But it will be urged that the investment itself is often lost. We answer that the above is independent of the investment. But where stockholders see to the management of their



Directors, require frequent reports and feel and manifest an interest in their property, instances are rare in which stock is sunk. It is generally by neglect of reports, absence from meetings, and recklessness of management, that stocks are rendered worthless. The advice we would give to stockholders would be, pay for your stock first, and then see that it is honestly managed.

#### MINERAL WEALTH OF VIRGINIA.

We find the following call for a convention of parties interested to consider steps for the more rapid development of the mineral wealth of Western Virginia.

The undersigned, in behalf of themselves and others, respectfully suggest that a convention be held at Charleston, Kanawha county, Virginia, on the 15th of November next, for the purpose of taking the necessary steps to develop and demonstrate the immense mineral wealth of that section of Virginia, watered by the Great Kanawha, Guyandotte and Big Sandy rivers, and their tributaries; and to confer upon the best means of rendering it available. They invite delegates, not only from the counties lying in the section mentioned, and on the projected works of internal improvement leading towards it, but representatives from the various coal, iron and salt companies, embraced within its bounds; and they also request the attendance of the friends of those lines of transportation, any part of whose revenues are expected to be drawn mediately or immediately from this section, of any and all individuals in this and other States, favorable to the increase of the mineral productions of the country.

|                   |                    |
|-------------------|--------------------|
| James H. Brown,   | Evermont Ward,     |
| Charles Hedrick,  | L. F. Donnelly,    |
| Job English,      | Henry H. Wood,     |
| Andrew Parks,     | H. M. Onderdonk,   |
| Samuel A. Miller, | Robert T. Harvey,  |
| John D. Lewis,    | Thomas D. English, |

#### SHIP CANAL BETWEEN LAKES HURON AND ONTARIO.

We published last week a notice of the meeting of delegates from various principal cities on the great lakes to advocate the policy of building a ship canal between Lakes Huron and Ontario, through Canada. The meeting was numerously attended by representatives of our lake cities, and the feeling was unanimous in favor of the project. Chicago and Oswego lead off, and imagine they are to derive immense results from its early completion. Now, there is one consideration in the outset that should have its due weight with us, as a people, before embarking in extravagant foreign speculations, and that is, that true national independence is best maintained by self-reliance, and providing within ourselves the means of accommodating the wants of our own internal commerce. However beautiful may be the bubble of free trade with Canada, and reciprocity in river navigation, we cannot forget that Canada is still Canada, and that we, as people of the United States, may have interests in direct conflict with those of that province.

But aside from this, there are other considerations of paramount importance in such a discussion. The great object on the part of

Chicago, of this proposed ship canal, in the construction of which our cities are to aid, is to provide a shorter means of transit from that city to New York.

Chicago turns her eyes to the northward, and squints around the northern promontory of Michigan, to get a view of a city lying more a degree to the south of east from her. It has not occurred to her to inquire if the same project were not as feasible within our own territory, and on a much shorter route. We have not ascertained what the exact difficulties are, which stand in the way of a canal across the southern part of Michigan; but would deem it wise in our cities to inquire first, as to the feasibility of a southern route in our own territory. The distance would be shorter, and the objections of long winters and closed navigation, must be less than on the proposed line.

#### SALE OF CARS BELONGING TO THE STATE R. R. GA.

We noticed in last week's issue the sale of some Cars belonging to the State Railroad, Ga. under a levy in Tennessee. The Atlanta Intelligencer accounts for this in the following manner.

"The facts of the case are simply these.—Several suits have been commenced in the courts of Tennessee by certain residents of that State, against the State of Georgia, for damages which the former claim to have sustained by delay of shipments, under a former administration. The Superintendent of the Western and Atlantic Railroad believed these claims to be vexatious and unjust, and in accordance with his duty attempted to defeat them. In order, therefore, to gain time which he deemed necessary for the preparation of his defence, he permitted a few stock cars, for which the State had no immediate use, to be sold. These cars were bid in by order of the Superintendent, and are now in possession of the State; there has been no harm done; no loss sustained; and we apprehend the honor of the State is placed on too firm a basis to be affected by so paltry a transaction as this."

However paltry the nature of the transaction, we see no reason for its occurrence. There were other means of staying a levy besides allowing property to be sold and running up charges. This instance, however, like many other instances of State management of works of internal improvement, only proves what is now becoming more and more believed, that works of internal improvement are more profitable in private hands than in those of States.

The Savannah Courier in commenting on this transaction says:

"To one conclusion we have long since come and very soon we believe that every Georgian, not controlled by selfish considerations, will arrive at the same; that is that the management of the Western and Atlantic Road should be taken out of the hands of the State authorities.

"Let the State either lease the Road for a term

of years, or—which we are inclined to think a wiser policy—sell two-fifths, or three-fifths of the stock—the title to the amount sold carrying with it a controlling voice in the management of the Road. Most sincerely do we hope that the next Legislature will adopt one or the other of these alternatives. Let it incorporate a company, to be composed of those who will pay the highest price for the amount of stock, (be it two-fifths, one-half, or three-fifths,) which it shall be determined to sell—the State reserving the right to appoint a minority of the directors to represent its stock; and we can hardly doubt that the fractional interest retained by the State will pay into its treasury a larger amount than the whole Road now yields, or ever will yield, while managed by the State authorities."

#### BODIAM COAL MINES, AT EVANSVILLE, IND. —DESTRUCTION OF THE WORKS BY FIRE.

We regret to learn from the following paragraph, from an Evansville exchange, that the out works of these mines have been destroyed by fire. The fire is said to have originated from hot ashes being deposited against the weather boarding of the engine house.

"A little before one o'clock yesterday morning the city was lighted up with the conflagration of the Engine House and Machine Shops at the Bodiam Coal Mines. The laborers had retired about 11 o'clock, leaving every thing safe, but were aroused in a little over an hour to find the buildings enveloped in flames. It is not known how the fire originated. It could scarcely have proceeded from the furnace owing to its fire proof construction. The Engine house was entirely destroyed and also the frame work over the shaft. The greatest loss is the destruction of a large quantity of flat rope, imported by Mr. Kersteman, especially for his business at the Mines, which cannot be replaced until he can send again to England.

"The value of the property destroyed is about \$3,000. The detention in the work is by no means an inconsiderable loss. The mining operations had sufficiently progressed to supply boats, and a number of them had already engaged to furnish themselves here. It is just at the season too, when our citizens were beginning to provide themselves with coal for winter. Several weeks must necessarily elapse before the Mines will again be in operation, though the buildings will be immediately replaced.

"Mr. Kersteman is in the East at this time but we learn will be home in two or three days. He is probably now on the way.—He has expended a great deal of money and labor in opening the Bodiam Mines and now when just commencing successful operations, to have his property destroyed is disheartening. But with his zeal and determined energy his work will soon be in full blast again."

#### MEXICAN BOUNDARY SURVEY.

The report that the Commissioners had completed the survey of the Mexican Boundary is incorrect. At latest dates Maj. Emory and a portion of the party had arrived at San Antonio, Texas.

"Lieut. Michley, who was to complete the survey from the Colorado eastward, was unable to proceed in the early part of the season



on account of the extreme drought. He met Major Emory at Las Nogales on the 21st of June last, and starting from thence would run his survey westward to the Colorado. He expected to have the work completed in four months, which would bring him through by the 1st of November. Major Emory's party describe the country they have surveyed as very destitute of timber. Along the streams (which are small) there is more or less timber, which, along the bottom, is generally cotton wood and ash.

"The soil is described as being generally fertile, and in the valleys very rich. The places where water is convenient, are well adapted to stock raising. The country along the line, for about one hundred miles west of El Paso is almost destitute of water, and is generally a sandy plain. From thence on to the San Luis Springs, a distance of about forty miles, water is abundant. About ten miles west of the last named place is the Canon de Guadalupe, which is the dividing ridge between the waters of the Atlantic and Pacific Oceans. Along the line from the Guadalupe Canon to Santa Cruz water is abundant, and the country finely adapted to raising stock.

"It was reported that gold had been found by the Mexicans near Santa Cruz, but none was seen by the party. But silver ore was found in abundance near Las Nogales, at the termination of the last western parallel. The specimens are generally very rich. It is said that there is scarcely a hill or mountain in that vicinity but what is covered with rock containing rich silver ore."

**PERU AND INDIANAPOLIS R. R.**—At a meeting of the Stockholders of the Peru and Indianapolis Railroad, held at Indianapolis, the following persons were chosen directors: E. J. Peck, S. A. Fletcher, J. D. Defries, I. W. Hunter, W. W. Wright, J. P. Drake, John Wooley, A. Wallace, N. Daubenspeak, E. M. Sharp, N. J. Jackson, C. D. Murry, N. Powell. J. D. Defries was elected President; Isaac W. Hunter, Superintendent; Andy Wallace, Treasurer; Thos. P. Haughey, Secretary.

**CLEVELAND AND PITTSBURG R. R. Co.**—The statement of the earnings and expenses of the Cleveland and Pittsburg Railroad Company for June, July and August of three years past, shows an increase each year. The increase in earnings in favor of this year over last is \$49,671, 04; and that of August this year over the same month last year is \$18,922 74—showing a steady increase of business upon the road.

#### EARNINGS.

|         | 1853        | 1854      | 1855      |
|---------|-------------|-----------|-----------|
| June    | \$35,823 92 | 47,729 74 | 56,019 91 |
| July,   | 34,373 08   | 36,643 81 | 59,101 94 |
| August, | 36,448 60   | 37,241 26 | 56,164 00 |

Total, \$106,747 60 121,614 81 171,285 85

#### EARNINGS AND CURRENT EXPENSES.—THREE MONTHS, 1855

|         | Earnings.   | Expenses. |              |
|---------|-------------|-----------|--------------|
| June    | \$35,019 91 | 20,834 20 | 37 per cent. |
| July,   | 59,101 94   | 21,006 59 | 36 "         |
| August, | 56,164 00   | 20,670 62 | 37 "         |

Total, \$171,285 85 62,541 41 37 1/2 "

## Railroads.

### SACRAMENTO VALLEY RAILROAD.

The advantages and importance of railroad communication between the different portions of this State, owing to the migratory habits of our population, the large amount of inland transportation, and the extraordinary cost of travel and transportation by stages and wagons, became apparent early in the history of the State, induced various railroad projects between different points, and directed the attention of many of our most enterprising citizens to their particular and comparative advantages and importance.

The position of Sacramento, at the head of general steam navigation on the Sacramento, and at Marysville, at the ultimate head of navigation on the Yuba—their relation to and command of the rich mining counties of Sacramento, Calaveras, El Dorado, Placer, Yuba, Nevada, Sierra and Shasta—the facilities of the intermediate country for construction, and the relation of such a line to all other projected enterprises, indicated a route from Sacramento, skirting the foot hills of the Sierra Nevada, to Marysville, as the work most required, which would be most remunerative, and which would furnish the most economical and convenient base for all such railroad enterprises as the demands of the State, present and prospective might require.

As early as 1852, the Sacramento Valley Railroad Company was organized, with a nominal capital of \$1,500,000, but owing to the stringent provisions of the General Railroad Law, and to other causes peculiar to our State, nothing further was done until the following Legislature had modified in some important particulars the existing law. The company was then recognized and the preliminary surveys made. These surveys developed the fact that the most feasible route was from Sacramento city along the south bank of the American river about twenty-two and one half miles; thence crossing the river at Negro Bar and skirting the hills in a northwardly direction some eighteen miles; thence diverging and passing direct to Marysville, embracing as its termini two of the most important distributing points in the interior.

This location, with the exception of a very short distance in leaving the American river crossing, has no grade greater than fifteen feet to the mile, and will admit of branches to Coloma and Nevada; also an extension up the Sacramento Valley towards Shasta, and also of a southerly extension, via Stockton to San Francisco, and was adopted as combining all the points required, and controlling completely, upon the completion of the road, and the extensions or connections indicated, all the interior traffic of the State of California.

In the month of October, 1854, Col. C. S. Wilson made a renewed effort to obtain sub-

scribers for such an amount of the stock, as would justify the commencement of the work under circumstances promising its speedy completion. Subscriptions to the extent of four hundred thousand dollars, or four thousand shares, were obtained, and on the 24th of November, a contract was entered into by the company with Robinson, Seymour, & Co of New York, to construct and equip a first class road for forty miles, for the gross sum of \$1,800,000, being at the rate of forty-five thousand dollars per mile, payable as follows:

|                                                                                       |             |
|---------------------------------------------------------------------------------------|-------------|
| In full capital stock at .....                                                        | \$800,000   |
| In the ten per cent. per annum bonds of the company, redeemable in twenty years ..... | 700,000     |
| In cash as the work of construction progressed .....                                  | 300,000     |
| Total .....                                                                           | \$1,800,000 |

This arrangement left in the hands of the company, open to subscription, seven thousand shares of the capital stock, upon which it was estimated that to meet the cash requirements of the contract \$300,000, and the incidental expenses of right of way, depot grounds, and engineering expenses, &c., and to open the first division, twenty two and a half miles, for traffic, by the first of October next, would not require to exceed fifty per cent. upon the 7000 shares subject to subscription.

Under this contract, the contractors have gone forward, and at this time very nearly the entire first division of twenty-two and a half miles, from Sacramento to the crossing of the American river at Negro Bar, is graded, bridged, and ready to receive the track. All the cars, rolling stock, with two locomotives, are delivered and set up ready for use & third, making the compliment, is enroute for San Francisco. All the chairs, spikes, frogs, and switches, together with 1,250 tons of iron, have arrived and are being delivered in Sacramento. The remaining 1,000 tons for the first division, is enroute and will arrive at San Francisco in the next thirty days.—

Thirty-five thousand sleepers, or cross-ties have been delivered, and the remaining 20 000, are ready for delivery as required. The laying of the permanent iron track has commenced and the contractors express great confidence that the first division will be completed and in active operation on or about the first of October next.

Immediately on completing the first division the contractors are prepared to commence work upon the second division.

The general features of the road are as follows:—From Sacramento to the crossing at Negro Bar the road is nearly straight, with no grade to exceed fifteen feet to the mile. After crossing the American river, the maximum grade of forty-five feet to the mile is encountered for a short distance, (say three or four miles) in overcoming the spurs or foot hills of the mountains, after which the road falls into the plains, and follows a very direct



course with light and level grades to Marysville.

The entire road from Sacramento to Marysville can be operated very cheaply and at a comparatively small outlay of power.

With reference to the prospective business of the road, and the traffic which can be relied upon for the first division, and the extension to Marysville, the committee state the results arrived at by the Chief Engineer of the company as follows:

The first division of twenty-two and a half miles, costing complete, about \$1,200,000, represented by one million stock and two hundred thousand dollars of bonded debt, will form the sole medium of communication between Sacramento city and the mining counties of Sacramento and El Dorado also a large portion of Calaveras and Nevada counties, comprising a population of 130,000, who are mostly a mining population, and hence are large consumers. By reference to the statistics appended, it will be seen that the total traffic out of San Francisco by wagons in 1854, was averaged at 162,700 tons, and about 275,000 passengers.—Fully two-thirds of this ascertained amount of traffic will pass over the entire length of the first division. In order however to arrive at conclusions within the limits of the business, only half of this traffic is assumed as applicable to the first division. The rates of charges upon freights will be fifteen cents per ton, per mile, or \$3.37 1-2 per ton of 2,000 pounds, and for passengers ten cents per mile, or \$2.25, per passenger. This would give a total yearly traffic on the first division, twenty-two and a half miles, as follows:

|                                                      |           |
|------------------------------------------------------|-----------|
| 81,000 gross tons, or 90,000 nett tons at \$3.37 1-2 | \$303,300 |
| 140,000 Passengers.....                              | 315,000   |
| Add for Mails and Expresses.....                     | 11,700    |
| " local passengers and freights.....                 | 35,000    |
| Total yearly receipts.....                           | \$665,000 |

The working expenses are put at twice the amount paid in the Eastern States, which is considered liberal; as the climate is much more favorable than on the North Atlantic coast, while fuel can be had at quite as satisfactory rates as on most of the Eastern roads. The amount required for this purpose is put at.....\$103,500  
To which add for Interest on bonds..... 20,000  
\$123,500

This would leave as dividends on \$1,009,000 stock \$541,500, or upwards of 50 per cent. per annum! It should be observed too that no account is made in the above earnings of return freight. Of one single product a large business will be thrown upon the road, in a short time. Granite for building and paving have to be imported from Massachusetts, from China, and even from Europe; as neither in San Francisco nor Sacramento materials for these purposes can be otherwise obtained. At the crossing of the American river, the eastern terminus of the first division, there

are, however, inexhaustible quarries of the best description, and perfectly accessible. On the completion of the road, this article can be delivered in San Francisco at half the present cost of building stone in that city, and can be delivered in Sacramento at the present cost of brick. A large business in the transportation of this material is consequently anticipated, besides hay, grain, hides, wool, &c. which cannot at present be exported, on account of the expence of transportation.

On completion of the second division, the road will control, in addition, the traffic of all Placer county, of all Nevada and Sierra, and a large portion of Yuba and Butte, all well populated and rich mining districts, and will add some 75,000 people to the number supplied by the first division.

The traffic connected with these counties (which the first division will not alone control) is very large, and while it will add to the traffic of the first division, will, from the comparatively small increase in working expenses remunerate the company fully as richly as the first division.

The additional receipts, that may with certainty be depended upon on the completion of the forty miles, may with safety be set down as 70,000 tons additional freight per year, and 100,000 passengers per year transported an average distance of 35 miles, which, at the rates before assumed would yield—

|                                                                                                    |             |
|----------------------------------------------------------------------------------------------------|-------------|
| For freights.....                                                                                  | \$367,800   |
| For passengers.....                                                                                | 350,000     |
|                                                                                                    | 717,500     |
| Deduct for working expenses, in consequence of heavier grades and curvatures, say 20 per cent..... | 143,500     |
| Leaving an additional profit on the second division.....                                           | \$574,000   |
| To which add estimated profit on first division.....                                               | 561,500     |
| Gives as the total net revenue on the 40 miles.....                                                | 1,135,500   |
| Deducting the interest on bonded debt, \$700,000, at 10 per cent.....                              | 70,000      |
| Leaving as net earnings, applicable to dividends.....                                              | \$1,035,500 |
| The two divisions will probably be represented by a cost of \$2,900,000; to wit—                   |             |
| 10 per cent. per annum bonds, payment in 20 years.....                                             | \$700,000   |
| Capital Stock.....                                                                                 | 1,500,000   |

Showing that the profits of the road would be equal to 66 2-3 per cent. per annum, a margin sufficiently large to cover any contingency that may arise.

As the rates fixed by law are so much lower than the present rates of transportation, being about one-sixth for freights, and one third for passengers, it will be a long time before the necessity will exist for reducing the rates consequent upon an increased population and a decreased price of labor. When that time does arrive, the increased business upon the road, consequent upon the very causes which will cause a reduction in prices, will well justify the company in making the reductions demanded.

It may be remarked here, that all the estimates of traffic are based upon present travel

and transportation. It is well known however, that there is a uniform and large increase of travel by reason of the greater economy and facility afforded by a railroad; but as there is no common standard by which to measure this increase, the Committee have not thought it advisable to indulge in mere speculation.

#### GALENA AND CHICAGO UNION R. R. EIGHTH REPORT.

The eighth report of this Company, giving a statement of its affairs up to May 1855, presents a very encouraging aspect, at least to the stockholders. This is one of the few companies that in 1854, were able to make dividends.

The total cost of the road will average nearly \$30,000 per mile, and its receipts about \$7,000; its expenses about 45 per cent. of its receipts. This is about the average of well conducted railroads and will not probably be much diminished.

From the Engineer's report we learn that there are 211 1-2 miles of road now in operation, leaving 37 1-2 miles to be completed during the present summer. The amount expended during the past year, upon the former, including additional grounds at Chicago, and rolling stock purchased, amounts to the sum of.....\$1,035,186 00  
And on the latter..... 524,502.38  
Expended upon the second track, between Chicago and Junction..... 56,534.83

\$1,616,223.91  
The total amount expended on the roads to the first of May, 1855, to..... \$5,866,263.06  
The estimated amount required to complete and stock the 249 miles, is..... 1,375,000.00

Making a total of.....\$7,241,263.06 which is equal to \$29,081 per mile, for the 249 miles of road, or \$24,300 per mile for the whole length of track, which will be 298 miles, including a double track to the Junction, 30 miles, and the straight line from Cottage Hill to Elgin, when fully completed.

The Secretary's Report shows the gross earnings of the past fiscal year to have been....\$1,506,710.11  
To which add surplus of May 1st, 1854.... 175,694.40  
Interest on deposits, &c..... 8,233.87

Making a total of.....\$1,690,638.38  
The operating expenses proper for the same time have been..... 686,516.86  
For renewal of Track, exclusive of labor which is charged to operating expenses, and old rails on hand..... 38,077.75  
Proportion of Interest and discount on Bonds and Loans, properly chargeable to Income account..... 79,957.98  
Loss by Wadsworth and Sheldon..... 23,812.31  
Dividends for the year, 17 per cent..... 646,519 00  
\$1,374,883.90

Total surplus, May 1st, 1855..... \$315,754 48  
The dividend of August 10th, 1854, was five per cent., cash, and seven per cent., in Stock; the latter being on account of the surplus earnings to that date which had been expended for construction purposes.

From the report and circular of the Secretary we make the following extract:

The connection of your Road with that of the Illinois Central Railroad Company, at Freeport



has rendered a contract with reference to running arrangements with that Company necessary. An agreement has, therefore, been entered into perpetuity which is believed to be equally beneficial to both Companies.—This connection opens to your Road the traffic of the Upper Mississippi River, via Galena and Dunleith, as originally contemplated, as well as a portion of the business from the South over the Illinois Central Railroad. This contract also provides that a connection of our Road with the extensive depots and depot grounds of the Illinois Central, and Michigan Central Railroads, at Chicago, shall be made. The contemplated purchase or control of the depot grounds (about 30 acres) of the St. Charles and Mississippi Air Line Railroad Company, situated on and near the South branch of the Chicago river, and the 8 or 10 miles of the track of their Company, already laid to the Aux Plaines river, will enable the Directors to perfect such connection at a small cost to the Company.

Negotiations are now pending for the purchase of the Depot grounds and track above mentioned, and all the material and other property of the Chicago, St. Charles and Mississippi Air Line Railroad Company. These negotiations will probably be soon terminated favorably, and involve an expenditure of about \$540,000, not embraced in the estimates of the Chief Engineer, payable in \$100,000 of the stock of this Company, and the remainder, less liabilities of that Company for depot grounds, etc., to be assumed, in two and four years, with 7 per cent. interest.—When closed, this purchase will wholly remove what has been considered by many Stockholders and Directors, a formidable rival.

The great increase of business over the eastern portion of your Road, resulting from the extension of the Chicago, Burlington and Quincy Railroad, (late Chicago and Aurora Railroad) to Burlington and Quincy, on the Mississippi river, and connections with other feeders now approaching completion, renders the increased facilities to be derived from this purchase very desirable, and the Directors feel a confidence that the advantages to be derived therefrom, will be fully equal to the cost.

The main line of your Road is now being fed by the Chicago, Burlington and Quincy Railroad, at the Junction, the Fox River Valley Railroad, at Elgin, the Beloit and Madison Railroad, at Beloit, and the Illinois Central Railroad, at Freeport. The Mineral Point Railroad when completed, will also become a feeder at Warren, 25 miles West of Freeport. The Chicago, Fulton and Iowa Central Line will be fed by the Lyons Iowa Central Railroad running from Lyons, opposite Fulton, on the Mississippi River, through the central part of Iowa; the work upon which has been recently resumed, under a new organization.

With all these connecting roads, except the latter, the Directors have already made contracts which secure to this Company their business, during the life of our charter.

By reference to the annexed tables, it will be seen that the business of your Road, per mile

operated, has been largely increasing each year. The agricultural and mineral resources of Illinois and Wisconsin are but partially developed, while Iowa and Minnesota are emphatically new States. The unexampled flow of emigration to the West this Spring, indicates a rapid increase in the traffic from these localities. In view of these facts, the Directors confidently believe that you can continue for years to come to realize a gradual and sure increase of the business on your Roads.

Although the estimates made heretofore of the amount of income to be realized have fallen short of the actual results, the Directors beg leave to present the following figures for the ensuing year, still aiming to keep within the probable results.

|                                            |                              |
|--------------------------------------------|------------------------------|
| The earnings are put at not less than..... | \$2,000,000.00               |
| Less for expenses, 50 per cent.....        | \$1,000,000.00               |
| Less 7 per cent. interest on, say          |                              |
| \$2,000,000.00.....                        | \$175,000.00                 |
| Less 10 per cent. dividend on, say         |                              |
| \$4,500,000.00.....                        | \$450,000.00..\$1,625,000.00 |

|                                    |              |
|------------------------------------|--------------|
| Probable surplus for the year..... | \$375,000.00 |
| To which add present surplus.....  | 315,754.00   |

Probable surplus May 1st, 1856..... \$690,754.00  
a fund sufficiently ample after applying \$25,000 to the sinking fund, to cover any depreciation not heretofore charged income account, and leave a handsome surplus.

In noticing the progress of the past year, the Chicago Path Finder says,—During the year additional grounds in Chicago have been secured, a new Freight house 75 by 340 built, and a grain house 60 by 250 capable of storing 400 000 bushels, will be ready for use September 1st. The company will then have at its command, storage for one million and a half bushels of grain and will be able to unload 400 cars of grain a day. The Chicago F. and Io. Central route from the Junction to Fulton, 105 miles, has been extended to Dixon, 23 miles, and put in good running order; 25 miles fenced and material purchased for the balance. Suitable brick freight and passage depots have been built at Dixon, where a connexion will be shortly made with the Illinois Central R. R. beyond Dixon the road is so far completed as to secure its being opened in the month of September. It is suggested that pressure of business will shortly require the extension of the double track to Elgin, which will be a straight line from Cottage Hill, a distance of 19 miles, which will be 6 1-2 miles shorter than the present line. The following is the present equipment of the Road;

|                       |                            |
|-----------------------|----------------------------|
| 44 Locomotive Engines | 7 Mail and Baggage Cars.   |
| 27 Passenger Cars     | 397 House Freight Cars,    |
| 5 Second Class Cars,  | 121 Platform Freight Cars, |
| 9 Emigrant Cars,      | 68 Hand cars,              |
|                       | 98 Gravel Cars.            |

**BUFFALO, BRANTFORD, AND GODERICH RAILROAD.**—This work has recently been leased to a London firm. The terms on which this has been executed are thus given in the *Buffalo Commercial*:—

The bondholders, represented by Hazleton & Powell, of London, propose to take the road in its present condition, at an annual rent of 30,000, for seven years. the eighth year at £32,500; the ninth at £35,000, the tenth at

£37,000, the eleventh, and thereafter forever at £40,000, and to take all the rolling stock and chattels at an appraised value, and to pay cash for the same at the time of transfer; and they guarantee to finish the road to Stratford by January 1, 1856, and to Goderich within years from the time of transfer. The London company loan to the old company an amount sufficient with their present assets, to pay off the floating debt of the road. And they also take upon themselves to pay the interest on the bonds of the road in London at their own cost, to be deducted from the yearly rent. We understand the interest on the first mortgage bonds has been properly paid in London, and that this arrangement will immediately make all the bonds par. persons having debts against this company will do well not to submit to any shave, as provision will soon be made for the payment of the whole floating debt.

#### ANNUAL REPORT OF THE HARTFORD AND NEW HAVEN RAILROAD CO.

The Annual Report of the Hartford and New Haven Railroad Company was made yesterday, at a meeting of the Stockholders. It gives the following statement of the business and receipts of the year ending Aug. 31, 1855:

|                               |              |
|-------------------------------|--------------|
| Received from Passengers..... | \$444,237 71 |
| " " Freight.....              | 250,039 47   |
| " " Mails, rents, etc.....    | 35,733 65    |
|                               | \$730,010 83 |
| Running Expenses.....         | \$377,213 43 |
| Interest on Bonds.....        | 65,953 63    |
|                               | 433,167 06   |

Nett Profit.....\$296,843 77  
or *thirteen per cent.* on the capital stock.

The regular semi-annual dividend of five per cent. was voted, payable on the 1st of October; also an *extra* dividend of five per cent., payable on the 15th of January next. The regular dividend of five per cent. will also be paid on the 1st of April next, making a *cash* dividend of *fifteen per cent.* for six months. The net earnings of the road for the last three years, on the capital stock, have been *thirteen per cent.* per annum, and the *surplus earnings or reserve*, after making the extra dividend next January, amount to something over \$180,000. This Company never indulges in the Peter Funk practice, common with Western railroads, of making *paper* dividends.

The report stated that the track and equipment of the road were in the best possible condition, and that the prospects for a large and steady increase of its business and receipts from year to year, were extremely good. The through travel by railroad between New York and Boston, is constantly on the increase, notwithstanding the improved character of the steamboats on the Sound. The large receipts of the past year, during a season of almost unprecedented contraction in business and manufactures, and severe pressure in the money market, show that the prosperity of this concern is founded on a basis of very great and unusual stability.

The following gentlemen were elected Directors:

Charles F. Pond, Charles Boswell, Hartford; Cornelius Vanderbilt, Joseph Battell, Thos. S. Gibbs, New York; Ezra C. Read, N. Haven; Chester W. Chapin, Springfield; James S. Brooks, Meriden; Wm. Jarvis, Middletown.



## FRENCH BROAD AND GREENVILLE R. R.

At a Convention held at Greenville, S. C., August 29, to take into consideration the importance and means of constructing this road, at which delegates were present from North Carolina, as well as the section of South Carolina, more directly interested, the committee on resolutions, in introducing the following resolutions, remarked that, since 1836, no one has ever doubted the importance of the connection of Charleston, Louisville and Cincinnati, by the French Broad Valley. The Committee, believing that the time has now arrived when that connection ought to be made, recommend the adoption of the following resolutions, viz:

1st. That this Convention, in common with all the people of South Carolina, desire the construction of the French Broad Railroad, and a connection therewith by the South Carolina Railroad.

2d. That as soon as the surveys and estimates can be made, the work should be attempted, by securing private and State subscriptions.

The resolutions were ably and eloquently advocated by Hon. Waddy Thompson, Hon. John Belton O'Neill, Col. N. W. Woodfin, and Honorable John Baxter, and unanimously adopted.

On motion of Gen. W. Thompson, the following resolution was submitted and unanimously adopted, viz:

*Resolved*, That a Committee of — be appointed by the Chairman of this Convention, to ask of the Legislature of this State, at its next session, an appropriation for a railroad to the line of the State of Tennessee, from such point in this State as may be decided upon after the surveys shall be completed.

In accordance with the foregoing resolution, the Chairman appointed the following Committee: Gen. W. Thompson, S. Fair, Esq., Maj. B. F. Perry, Col. T. P. Brockman, and Perry E. Duncan, Esq.

On motion of Judge O'Neill, the following gentlemen were added to the above Committee: N. W. Woodfin, Esq., and Hon. John Baxter.

On motion of Col. Baxter, the Chairman, Col. T. C. Perrin, was added to the Committee.

On motion of P. E. Duncan, Esq., Hon. John B. O'Neill was also added to the Committee.

## FOX &amp; WISCONSIN RIVER IMPROVEMENT.—

From the following notice from the Engineer in charge, it will be seen that this improvement is near completion:

In compliance with a resolution passed by the Board of Directors of the Fox and Wisconsin Improvement Company, I hereby give public notice that the water will be let into their Canals between Lake Winnebago and Green Bay on and after the first of October next, and that passage for boats may be expected within a fortnight thereafter.

Until the lock and dam at Little Kaukauna are completed, or until the present low state of water is raised, it is not advisable to pass boats with more than three feet draught of water. The old locks at Depere and the Croche, also will not readily admit boats of greater dimensions than 130 feet in length by 30 in width.

C. D. WESTBROOK, JR.,  
Chief Engineer.

## PHILADELPHIA AND BALTIMORE CENTRAL RAILROAD.

The Kennett Square Press in speaking of this road says, the contractors, Messrs. Stone, Quigly & Eddy, agreed to do the grading, bridging and masonry for the sum of \$195,000, \$150,000 in cash payments, and \$45,000 in stock. The work was commenced on the 3d of January, 1855. About seventeen miles are graded, and some of the most expensive bridges are well on toward completion. The balance of the work to be done necessary to prepare the track for the rails, can be performed before the 1st of April, 1856. The West Chester and Philadelphia Railroad will be opened it is believed, to the point of intersection, four miles west of Media, before the 1st of January, 1856. Arrangements were made to lay the track of the Central Road from Grubb's bridge to the Brandywine at an early period this fall, if the West Chester Road had been finished at the time expected. The stock subscriptions have been raised exclusively in the country along the line of the road. The district to be drained by the road, amounting to about 1,200 square miles, is highly cultivated, and for agricultural purposes it is surpassed by none of equal extent in the United States. The road, as located, is about eighty-five miles in length. The road will not have a single pile or draw bridge on the whole line, and it will cross the Susquehanna river above Port Deposit by a permanent bridge of easy construction, upon solid rock foundation. The estimated cost of the Road, including the bridge at the Susquehanna, will not exceed \$20,000 per mile, making \$1,700,900. If we allow \$300,000 for equipments and for incidentals, the whole cost cannot be greater than two millions. The Pennsylvania division, when completed and equipped with cars, locomotives, depots, etc., will cost less than \$17,000 per mile. Arrangements are now making to purchase the Iron, and we hope ere long to hear the sound of the locomotive through our beautiful valleys.—*West Chester Record*.

## LIABILITY OF RAILROADS — LEGAL DECISION.

We learn from the Macon Messenger, that the Supreme Court of Georgia, at its recent term at Decatur, made a decision in a case carried up from Bibb County, in which the rule is settled as to the amount of diligence which is necessary to protect Railroad Companies from liabilities for injuries done to property by the running of their trains:

*The Macon and Western Railroad Company vs. James M. Davis, adm'r, etc.*—This Court erred in instructing the jury that the conductors and engineers are bound to use the utmost skill and diligence to prevent accidents at crossings, and that for this purpose they must so arrange their engines and trains as to be able to check or stop them at all crossings, so as to prevent collisions—it being the opinion of the Court that the true and only rule in this and all similar cases is, that these agents must use reasonable diligence, taking into consideration all the circumstances of the case, and that whether the party has been negligent or not, depends upon the peculiar facts of each particular case; and the question is to be decided by the jury. It is farther the opinion of the Court, that, notwithstanding, the plaintiff may not be without fault, still if the injury could have been prevented in the

exercise of proper and reasonable precaution, (on the part of the defendant, we suppose the Court to mean,) and was not, the defendant will be liable.

**NEW RAILROAD DEPOT.**—The South Carolina Railroad Company has completed its fine Freight Depot, which Messrs. Killian & Co. have finished with great punctuality, according to contract. The building is handsomely constructed, and conveniently arranged, with suitable offices for the several departments. The depot for goods is 250 feet in length, and 50 feet wide, and admirably arranged for business purposes. With the new patent crank for shifting cars, and the improved scales for weighing, much labor will be saved. The cotton platforms are to be supported by granite abutments, and filled up, gravelled and cemented, so as to have no wood about them—and the track leading to them for some distance will be laid on granite cross ties, to prevent any risk from fire.—*Columbia Banner*, Sept. 12.

## VAST MINERAL RICHES OF THE GADSDEN PURCHASE.

The Silver and Copper Mines of Plancha de Plata and La Mina del Axo.—Some months since we noticed the formation and departure of a company of adventurers in this city for the exploration of the Gadsden purchase. They arrived at their point of destination, and discovered, among other valuable mines, the one known as La Mina del Axo, situated about 30 miles south of the Gila river, and 25 north of the new boundary line between the United States and Mexico. Taking formal possession of this, they sent back a party to this city, and furnished such extraordinary statements regarding the wealth of the mine, that several capitalists were induced to invest in the matter, and a stock company was formed under the laws of California, with a capital of \$500,000, in shares of \$100 each. A sufficient amount of the stock was disposed of to raise a working capital, and, thus armed, the party returned with a scientific miner and a competent number of workmen.

This mine, according to the representation of Mr. R. Sackett, is one of the richest in the world, and is only one of the numerous mines which, to judge from the formation of the country, are likely to prove equally productive. The vein crops out of the ground for a distance of 100 yards. It is but a few inches wide at the surface of the ground, but increases in width at the rate of an inch to the foot as the vein is followed down. Specimens which we have seen of the ore are heavy with the metal, and pieces of pure copper glitter forth at all points from the mass. At the last stage of excavations, specimens of pure copper had displayed themselves, and the only difficulty anticipated by the proprietors seems to be that the ore will gradually disappear and leave the pure metal which cannot be got out with equal facility and cheapness with the ore.

The ore is said to be inexhaustible, and increasing in richness as it is followed. Not far from this locality is the celebrated Mina de Plancha de Plata, where as Mr. Sackett states, a piece of virgin silver was recently picked up weighing 14 pounds, and formerly a piece weighing 100 arrobas found by Mexican miners. This and other old mines are now abandoned and filled with water, the workmen having been driven away by the hostile Indians.

By the next steamer from San Diego more additional news may be expected from that section of the country in relation to its mineral wealth. Should the report prove correct, California will not be long in throwing some of her adventurous population into our newly acquired territory, to explore its hidden treasures.—*San Francisco Alta California*.



## Miscellaneous and Mechanical.

EDITOR OF RAILROAD RECORD.

DEAR SIR:—In the Record for Aug. 23d, 1855, which has just come under my notice, is an article upon the "Strength of Steam Boilers," in which a conclusion is drawn, evidently erroneous, and if not corrected, *might* lead to disastrous results.

After saying that a strip of boiler plate  $1 \text{ in.} \times \frac{1}{4}$  would require a force of 15,000 pounds to tear it asunder, and that one-fourth the strength will not be too high an estimate for general application, the clause winds up: "We say then that a well made cylindrical boiler can stand a pressure of 3,750 pounds *per square inch* before it will burst." (The italics are my own.)

My objections to the above are two-fold: 1st. Working steam boilers at one-fourth the maximum strength of the material (no allowance being made for the weakening by rivet holes,) is too hazardous on account of the serious loss of life and property involved in case of a rupture. Beside the weakening by rivet holes, as mentioned above, other contingencies must be allowed for flaws and defects, either original or produced in the course of construction.

2d. The clause in regard to the strength of cylindrical boilers, conveys the idea that it is immaterial what is the diameter of the cylinder, and that with the same section of material the strength is the *same*, provided it be a cylinder.

I am the more anxious to correct this error, as it is a serious one, and I *know* it to prevail to a considerable extent among boiler manufacturers.

In exposing the error, I shall omit entirely the effect of the rivet holes upon the strength, as that is a simple reduction in some given ratio to the section.

Suppose the standard there given be applied to an ordinary cylinder boiler forty-two inches diameter, (a usual diameter on Western steamboats,) the cylindrical band one inch wide by one-fourth inch thick, must at any two points, diametrically opposite, sustain the pressure acting on forty-two square inches (the diameter of the boiler being forty-two inches,) and the pressure acting in right lines. We will suppose at 150 pounds per square inch  $42 \times 150 = 6,300$  pounds acting upon one-half a square inch (the section of the band being  $1 \times \frac{1}{4}$  inch on *both* sides the diameter,) 12,600 pounds per square inch. This tension upon the iron *may* be considered within the limits of safety.

But, suppose the cylinder to be three times this diameter, or 126 inches, the result would be a pressure of  $126 \times 150 = 18,900$  pounds acting upon a section of one-half a square inch, which, applied to steam boilers, is undoubtedly *without* the limits of safety.

The law is simply this: That for the same thickness of boiler plate and conditions of workmanship, the strength of a cylindrical boiler is inversely as the diameter.

Sept. 20th, 1855.

W. C. C.

[We ask the attention of our correspondent to one or two considerations immediately deduced from the mode of reasoning pursued in the communication. Let us consider for a moment the amount of pressure on the ends of a boiler, deduced in this manner. Boilers forty-two inches in diameter, usually vary from thirty to thirty-six or even forty feet in length. Now, assuming the shortest length, 30 feet or 360 inches. Pressure acting in right lines, we shall have as the pressure sustained by a square inch on the end of the boiler

$$360 \times 150 = 54,000 \text{ pounds}$$

on both ends, or 27,000 on a square inch of each end of the boiler. This is evidently *without* the limit of safety.

Again, to take into consideration the effect of rivets. It is very evident that the rivets are the weakest part of a boiler. The strength of the original iron is reduced, and the thickness of the heads is rarely equivalent to the whole thickness of the plate. What, then, is the effect of a very great but gradual increase in the pressure on the boiler. Simply that the joints around the rivets begin to leak, and that this leakage increases with the pressure, till it becomes sufficient to relieve it. This assertion is not mere theory, it has been proved by experimental tests.

We are glad to find attention directed to this most important subject, it is one of vital interest to every one whose business or pleasure leads him near a steam boiler, and there hardly exists a man in our country, whose life might not be endangered by either the ignorance or carelessness of an incompetent engineer.

Attention directed to this subject, will lead to investigation and extended investigation will, we believe, show that the great danger of explosion arises from the cause to which we have assigned it, viz: that the engineer allows the water to become low, the sheets of iron become hot, and the first disturbance in the surface of the water dashing over this red hot iron, produces the fatal result.]

### CORRUGATED IRON.

To show the utility of this metal when corrugated, we copy from a recent number of the *Washington Star*:—"We yesterday witnessed the effect of corrugation upon plates of iron, producing results that should be widely known. It was at the War Department. A plate three inches long and four broad, so thin that supported only at the ends, it would bend of its own weight, corrugated, sustained a weight of 600 pounds, as was proved by testing by its side a corrugated plate of precisely similar weight and dimensions attached to it by a string. The Quartermaster's department are extensively adopting corrugated iron for camp uten-

sils, &c, instead of wood, iron, or other metals, prepared (shaped) in any other way. Thus a camp bedstead has been adopted which is sufficiently strong and firm for all army purposes, though not weighing more than fifty pounds—quite as strong and firm as the army bedsteads now being sent from London to the Crimea which weigh one hundred and fifty pounds each. A corrugated iron water-tight wagon body, that floats from two thousand to two thousand five hundred pounds of freight, besides the running gear, and weighs less than a wooden wagon body to carry the same freight, has also been adopted into the service of the United States, besides other articles of the same material. These facts show that those entrusted with the management of the Quartermaster's Department of the army of the United States are making the most for their charge, of the steady advance of their countrymen in improvements in the useful arts.

PURE NATIVE IRON.—The scientific world up to the present time, have never deemed the proof which has been produced in favor of the existence of native iron sufficiently conclusive to settle the question. But it seems that the controversy is at length, in a fair way to be ended, by the discovery of the interesting fact in chemistry, or mineralogy, that pure native iron is no longer a fiction, but a reality. Mr. Coppinger of the Colonization Society in Philadelphia, says the North American, has received a specimen of iron from Bassu county, Republic of Liberia, accompanied by the following communication:—

"I send you a peice of African ore, just as dug from its native bed, or broken from among the rocks. I have seen and conversed with a number of the natives, who affirm that it is actually the pure ore, or just as taken from its native bed. I obtained a peice through Mr. George L. Seymour, who had tried in vain to dissect it; and I being of that craft, he brought it to my shop for that purpose. When he brought it, it appeared like a craggy rock, of yellowish color on its surface, and, with a very small exception, it could not be separated but by heat and hard pounding with my largest sledge-hammer and a chisel prepared for the purpose. I also send you a tea spoon which I made of some of the ore, which in its crude state is superior to the iron brought here for sale by English merchant vessels. You may see at a glance, that in its crude state so great a polish with a bad contrivance, can be put on the metal, what it would be with a fair chance; though I did not make this spoon as neat as I could, as my leading design was to show the quality of the metal. I am told by the natives that it is plentiful, and about three days' walk from our present place of residence, it is gotten by digging and breaking rocks. It is also said to be in large lumps. In these parts the natives buy no iron, but dig it out of the ground, or break the rocks and get it, as the case may be."

This specimen of iron, continues the American, has been recently submitted to the most rigorous analysis, by Dr. A. A. Hayes, a well known and esteemed scientific chemist of Boston, who pronounces it, by conclusive proofs, to be a true native iron, not meteoric, or reduced in any way from an ore; it was found to contain minute crystallized particles, which would have been destroyed by smelting. It contained no carbon, which all manufactured iron must of necessity contain. Its character as native iron we understand, is fully admitted by Professor Silliman and other most competent judges of such matters. The settlement of this question is of great scientific interest and practical importance. Dr. Hayes is preparing an account of his investigations, which will be soon presented to the public.

Phil. Eng.



## STOCK TABLE.

CORRECTED WEEKLY.

GOVERNMENT SECURITIES.

|                                                            | INT. | DUE.    | OFF'D. | ASK'D  |
|------------------------------------------------------------|------|---------|--------|--------|
| U. S. Loan.....                                            | 6    | 1856    | 105    | 105    |
| Do .....                                                   | 6    | 1862    | 112½   | 112    |
| Do .....                                                   | 6    | 1867    | 117½   | 120    |
| Do .....                                                   | 6    | 1868    | 117½   | 120    |
| Do (Int. ceased July 1) 5                                  | 5    | 1853    |        | 102    |
| Do Coupons.....                                            |      | 1862    |        | 118    |
| Do .....                                                   | 6    | 1867    |        | 118    |
| Do .....                                                   |      | 1853    |        | 101    |
| STATE.                                                     |      |         |        |        |
| Alabama.....                                               | 5    | ....    |        |        |
| California.....                                            | 7    | 1870    | 87     | 88     |
| Arkansas.....                                              | 6    | ....    |        | 96     |
| Georgia.....                                               | 6    | ....    | 98     | 99     |
| Do .....                                                   | 7    | ....    |        |        |
| Illinois Canal Bonds.....                                  |      | 1860    |        |        |
| Do do registered.....                                      |      | 1860    |        |        |
| Do do .....                                                |      | 1847    |        |        |
| Do do registered.....                                      |      | 1847    |        |        |
| Do do Internal Impt. 6                                     | 6    | 1847    | 105    | 106    |
| Do Interest do.....                                        |      |         | 64     | 64     |
| Indiana.....                                               | 5    | ....    | 82     | 84     |
| Do .....                                                   | 2½   | ....    | 53     | 54     |
| Do Canal Loan.....                                         | 6    | ....    |        |        |
| Do do preferred.....                                       | 5    | ....    |        |        |
| Do special preferred.....                                  | 5    | ....    |        |        |
| Kentucky, 30 years.....                                    | 6    | 1871    | 103    |        |
| Do 16 years.....                                           | 6    | ....    | 102    |        |
| Do large bonds.....                                        | 6    | 1869-72 | 100½   |        |
| Do .....                                                   | 5    | ....    |        |        |
| Louisiana.....                                             | 6    | ....    | 93½    | 95     |
| Michigan.....                                              | 6    | ....    | 97     | 98     |
| Missouri.....                                              | 6    | ....    | 92½    | 93     |
| New York.....                                              | 6    | 1860-61 | 112    | 114    |
| North Carolina.....                                        | 6    | ....    | 99     | 100    |
| Ohio.....                                                  | 6    | 1856    | 100    |        |
| Do .....                                                   | 6    | 1860    | 105½   | 106    |
| Do .....                                                   | 6    | 1870    | 110    | 111    |
| Do Coupons.....                                            | 6    | 1875    | 112    | 113    |
| Do .....                                                   | 5    | 1855    |        |        |
| Pennsylvania.....                                          | 6    | ....    |        |        |
| Do .....                                                   | 5    | 1870    | 88     | 89     |
| Tennessee, long loan.....                                  | 6    | 1890    | 96     | 97     |
| Do Coupons.....                                            | 5    | ....    | 81     | 83     |
| Virginia Coupons.....                                      | 6    | 1886    | 97½    | 99     |
| CITY SECURITIES.                                           |      |         |        |        |
| Albany.....                                                | 6    | 1871-81 |        | 99½    |
| Allegheny.....                                             | 6    | 1875-7  |        | 80     |
| Baltimore.....                                             | 6    | 1870-90 | 99½    | 100½   |
| Do .....                                                   | 5    | 1865    |        |        |
| Boston Bonds.....                                          | 4½   | 1860    |        |        |
| Chicago.....                                               | 6    | 1873-7  | 92½    | 95     |
| Cleveland.....                                             | 6    | 1879    | 93½    | 105    |
| Cincinnati.....                                            | 6    | 1866-92 | 96     | 96½    |
| Do .....                                                   | 6    | 1897    |        |        |
| Do .....                                                   | 5    | 1884    |        |        |
| Do W. W.....                                               | 6    | 1865    |        |        |
| Covington.....                                             | 6    | 1857    | 80     | 80     |
| Jeffersonville ..                                          | 6    | 1890    | 70     |        |
| Louisville.....                                            | 6    | 1880    | 86½    | 87     |
| Memphis.....                                               | 6    | 1882    |        | 72½    |
| New York.....                                              | 7    | 1857    | 100½   |        |
| Do .....                                                   | 5    | 1858-00 | 96     | 99     |
| Do .....                                                   | 5    | 1870-5  | 97     | 100    |
| Do .....                                                   | 5    | 1890    |        |        |
| Philadelphia.....                                          | 6    | 1876-90 | 94½    | 95     |
| Pittsburgh.....                                            | 6    | 1869-78 | 81     | 82     |
| Do coupons.....                                            | 6    | 1883    |        |        |
| Racine.....                                                | 7    | 1873    | 85     | 86     |
| St. Louis.....                                             | 6    | 1870    | 85     | 86     |
| Wheeling.....                                              | 6    | 1873    | 73     | 75     |
| COUNTY BONDS.                                              |      |         |        |        |
| Bourbon, Ky.....                                           | 6    | 1881    | 77½    | 80     |
| Darke, O.....                                              | 7    | ....    |        |        |
| Fairfield, O.....                                          | 7    | 1862    |        |        |
| Fayette, Ky.....                                           | 6    | 1881-3  | 75     | 75     |
| Hancock Co.....                                            | 7    | ....    | 70     | 76     |
| Mason, Ky.....                                             | 6    | 1881    | 73     | 76     |
| McCraken Co. Ky, endorsed by<br>New Orleans and Ohio R. R. |      |         |        |        |
| St. Louis.....                                             | 6    | 1866    | 80     | 85     |
| Do .....                                                   | 7    | 1871    |        |        |
| BANKS.                                                     |      |         |        |        |
| OHIO.                                                      |      |         |        |        |
| American Exchange Bank, N. Y.....                          |      |         | 105½   |        |
| Ohio Life Insurance and Trust Co.....                      |      |         | 98     | 100    |
| Washington Insurance Co.....                               |      |         | 84     | 85     |
| City Insurance.....                                        |      |         | 70     |        |
| Cincinnati Insurance Co.....                               |      |         | 84     |        |
| National Insurance.....                                    |      |         | 76     | 80     |
| KENTUCKY.                                                  |      |         |        |        |
| Bank of Kentucky and Branches.....                         |      |         |        |        |
| Northern, and Branches.....                                |      |         | 100    |        |
| Southern, and Branches.....                                |      |         |        |        |
| Bank of Louisville.....                                    |      |         | 93     |        |
| Kentucky Trust Co.....                                     |      |         |        |        |
| Farmers' Bank of Kentucky.....                             |      |         | 105½   | 108    |
| Commercial Bank of Kentucky.....                           |      |         |        |        |
| INDIANA.                                                   |      |         |        |        |
| State Bank and Branches.....                               |      |         |        |        |
| TENNESSEE.                                                 |      |         |        |        |
| State Bank and Branches.....                               |      |         |        |        |
| Union.....                                                 |      |         |        |        |
| Planters.....                                              |      |         |        |        |
| LAND WARRANTS.                                             |      |         |        |        |
| 160 acre warrants, per acre.....                           |      |         | Buy'g  | Sell'g |
| 80 acre warrants.....                                      |      |         | \$1 10 |        |
| 40 acre warrants.....                                      |      |         |        |        |



## EARNINGS OF THE M. S. &amp; N. I. R. R.

The quotations given are sterling quotations. The American value is to be obtained by adding on exchange generally about 10 per cent.



# STATE OF THE BRITISH FINANCES — COST OF THE WAR.

However willing the country is to bear all the necessary expenses in order to conduct the war with vigor and success, it is, nevertheless, desirable that we should have clearly kept before us the actual expenditure that we are incurring. Including the cost of collecting the revenue, the entire expenditure of the current year, according to the estimates laid before Parliament during the session which has just expired, amounts to no less a sum than £94,524,951; which is made up of the following sum:

## ESTIMATED EXPENDITURE FOR THE YEAR ENDING MARCH 31, 1856.

|                                                                          | Excluding cost of collecting the revenues. | Including cost of collecting the revenues. |
|--------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|
| Charges for interest and management on the funded and unfunded debt..... | £ 27,974,000                               | £                                          |
| Permanent charges on the consolidated fund.....                          | 1,750,000                                  | 29,724,000                                 |
| Army, including militia and commissariat.....                            | 18,789,532                                 |                                            |
| Navy, including transports and packet service.....                       | 16,379,013                                 |                                            |
| Ordnance.....                                                            | 8,644,142                                  |                                            |
| Vote of credit for extraordinary expenses of the war.....                | 3,000,000                                  |                                            |
| Miscellaneous civil service.....                                         | 49,812,687                                 | 49,812,687                                 |
| Loan to Sardinia.....                                                    | 6,500,000                                  | 6,500,000                                  |
| Collection of the Revenue:                                               | 1,000,000                                  | 1,000,000                                  |
| Customs.....                                                             | 1,418,429                                  |                                            |
| Inland Revenue.....                                                      | 1,428,670                                  |                                            |
| Post Office.....                                                         | 1,638,861                                  |                                            |
|                                                                          |                                            | 4,385,951                                  |
| Ways and means bills issued in 1854-'55, remaining to be paid off.....   | 87,036,687                                 | 91,422,638                                 |
| Margin.....                                                              | 1,000,000                                  | 1,000,000                                  |
|                                                                          | 2,102,313                                  | 2,102,313                                  |
|                                                                          | 90,139,000                                 | 94,524,951                                 |

It will be observed that the entire provision for the services in connection with the war, including a vote of credit of £3,000,000 applicable to unforeseen exigencies, amounts to £49,812,687, or about £33,500,000 in addition to the ordinary peace expenditure for those services. Of this large sum the expenditure of the army and commissariat is £18,789,532; that of the navy, including transports and packet service, is £19,379,013; and that of the ordnance is £8,644,142. But besides these sums, there is the vote of credit of £3,000,000, which may be applied to any of the three services. The expenditure under these heads will, therefore, exceed by a considerable sum all the other expenditure of the year, including the charges upon the national debt and the cost of collecting all branches of revenue.

The way in which this enormous expenditure has been provided for is as follows:

## ESTIMATED INCOME INTO THE EXCHEQUER IN THE YEAR ENDING MARCH 31, 1856.

|                                                     | Net.         | Gross.       |
|-----------------------------------------------------|--------------|--------------|
| Customs.....                                        | £ 22,450,000 | £ 23,768,429 |
| Excise.....                                         | 17,921,000   |              |
| Stamps.....                                         | 6,815,000    |              |
| Land and assessed taxes.....                        | 2,900,000    |              |
| Property and Income tax.....                        | 14,535,000   |              |
|                                                     | 42,191,000   | 43,619,670   |
| Post Office, including £288,000 for newspapers..... | 1,438,000    | 3,076,861    |
| Crown Lands.....                                    | 260,000      | 260,000      |
| Miscellaneous.....                                  | 800,000      | 800,000      |
|                                                     | 67,139,000   | 71,524,951   |
| Money to be raised by loan.....                     | 16,000,000   | 16,000,000   |
| Do. by Exchequer bills.....                         | 7,000,000    | 7,000,000    |
| Total.....                                          | 90,139,000   | 91,524,951   |

From this statement it appears that under all kinds of taxation the entire sum which

will be collected amounts to £71,524,951, and that £23,000,000 will be raised by an addition to the funded and unfunded debt of the country.

Taking the usual income of the country from the ordinary source of taxation, including the cost of collection, at £54,000,000, it follows that the additional taxation of the present year, in consequence of the war, amounts to £17,524,951, and as the entire additional expenditure caused directly by the war amounts to £33,500,000, fully one-half is borne by additional taxation, and somewhat less than a half is furnished by loans. It will be observed that the entire provision of ways and means for the year includes a sum of £1,000,000, part of the loan to the Sardinian government; a sum of £1,000,000 to pay deficiency bills issued last year; and a sum of £2,102,313 as a margin of income over estimated expenditure.

Of the £23,000,000 provided by way of addition to the public debt (funded and unfunded,) £16,000,000 has already been contracted for, and is now in the course of payment. Of the remaining £7,000,000, in the form of Exchequer bills of Exchequer bonds, no portion has yet been issued, nor is it probable, judging by the explanations given in Parliament, that any of these securities will be brought upon the open market until the close of the present year, and probably not until early in the next year.

We are now in the second year of the war, and by the time it is expired, there will have been raised by way of loans in England and France, and the subscriptions completed, the sum of £29,000,000 by the former, and of £66,000,000 by the latter, making together £95,000,000 of public securities absorbed within two years.—*London Economist.*

## SUBMARINE TELEGRAPH TO NEWFOUNDLAND.

The late attempt to lay the cable containing the wires for this enterprise, owing to a storm, has proved a failure; the following, taken from a New York paper, recounts the loss:

"The point of starting was Cape Ray Cove, where a favorable spot was found for landing the end of the cable. A house was erected at their point, and the bark having been towed to the cove by the James Adger, the end of the cable was brought safely ashore on the evening of the 23d. The next day was foggy and unfavorable, but on Saturday morning, the 25, the steamer took the bark in tow, and endeavored to proceed to sea. A violent north-west wind was blowing, and while the vessels were endeavoring to get into line, a slight collision took place, which seriously strained the cable. The attempt was then given up, but the bark soon afterward lost her anchor, and was drifting before the gale upon a reef of rocks, when she was obliged to cut the cable and set sail to save herself from wreck. The cable was spliced on the following day, but as the junction was not found to be sufficiently strong, the two miles which had already been paid out were abandoned, and a new end hauled ashore and made fast. On the morning of Tuesday the 26th, the weather was calm and propitious, and the steamer towed the bark to sea. Her progress was slow at first, and by night not more than 20 miles of the cable were laid. Owing to a kink produced by uncoiling, it broke during the night, occasioning a delay of eight hours.

The paying out went on more rapidly next day, but a south-east gale arose toward evening, and became so violent, that the safety of the bark was endangered. After all means of securing her had been exhausted, and her situation was becoming more and more perilous, the cable was cut to save her. All three of the insulated copper wires had already been broken by the violence of the strain. At the time this occurred, forty miles had paid out, leaving thirty-four miles on board. The steamer was then about thirty miles distant from Cape North, the terminus of the submarine line."

The loss is stated to be about \$40,000, fully insured. We do not see the necessity for the long delay that must arise from waiting for a new cable. If this could be laid down, it is quite probable that it can be taken up. One end is supposed to remain fast at Cape Ray Cove, the point of beginning, and by means of this end, we see no reason why the whole cable may not be recovered, spliced and relaid. This is a matter of public interest, as it will bring us some days nearer Europe. And even two or three days at this interesting juncture, is a valuable gain.

## WEIGHTS AND MEASURES.

AN ACT to amend an Act concerning Weights and Measures.

Sec. 1. *Be it enacted by the people of the State of Illinois, represented in the General Assembly,* That whenever any of the following articles shall be contracted for, or sold, or delivered, and no special contract or agreement shall be made to the contrary, the weight per bushel be as follows, to wit:—

Shelled corn fifty-six pounds; corn in the ear, seventy pounds; wheat sixty pounds; rye, fifty-six pounds; oats, thirty-two pounds; barley, forty-eight pounds; Irish potatoes, sixty pounds; sweet potatoes, fifty-five pounds; white beans, sixty pounds; castor beans, forty-six pounds; clover seed sixty pounds; timothy seed, forty-five pounds; flax-seed fifty six pounds; hemp seed, forty four pounds; blue grass seed, fourteen pounds; buck-wheat, fifty two pounds; dried peaches, thirty-three pounds; dried apples, twenty-four pounds; onions, fifty-seven pounds; salt, fifty pounds; stone coal, eighty pounds; malt, thirty-eight pounds; bran, twenty pounds; turnips, fifty-five pounds; hair, (plastering) eight pounds; unslaked lime, eighty pounds; corn-meal, forty eight pounds; fine salt, fifty-five pounds.

Sec. 2. All laws and parts of laws inconsistent with this act are hereby repealed.

Approved Feb. 14th, 1855.

## RAILROAD IRON.

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via, Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. WALKER & BERRY. Quebec & Kingston, Canada. BERRY & WALKER. Liverpool, England. Kingston, C. W., Sept. 15, 1855.

MIDDLETON, WALLACE & CO.,  
LITHOGRAPHERS & ENGRAVERS,

No. 115 Walnut St., Cincinnati.

RAILROAD BONDS AND CERTIFICATES OF STOCK  
Beautifully executed and at moderate rates.

Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.

Engraved in all styles and on short notice.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**

**Railroad Depots and Station Houses,**

at current rates. **L. A. OSTROM,**  
Aug. 16. No. 6 West Third Street, Cincinnati.

**Railroad Iron,**

**1,500 TONS,** now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.,** 9 South William street. 8. 1m

New York, Aug. 16th, 1855.

**NOTICE TO CONTRACTORS.**

**PROPOSALS** will be received at the office of the Henderson and Nashville Railroad company in Madisonville, Kentucky, until the first Monday in October next, for the grubbing, clearing, grading and masonry of said road, or any part thereof. The work will be divided into convenient sections to suit bidders, of not less than half a mile. Proposals will be opened at the city of Henderson, on the said first Monday in October, at which time and place the Board of Directors will meet for that purpose.

E. G. SEBREE, Prest.  
CHAS. SEYMOUR, Chief Engineer.  
August, 18th, 1855. 5w



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,  
North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
CINCINNATI.

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

*Bank Notes, Drafts, Bills of Exchange,*  
**RAILROAD BONDS, & CERTIFICATES**  
Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE  
ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence with that of Bank Notes—

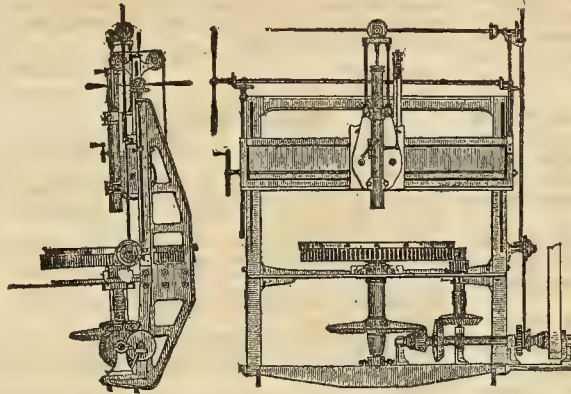
**RAIL ROAD, STATE, AND COUNTY BONDS,**  
**BILLS OF EXCHANGE, CHECKS,**  
Drafts, Certificates of Stock and Deposit, Promissory Notes, Bill and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
**GEORGE T. JONES,**  
South-East corner of Main and Fourth Sts., Cin.

**NILES' WORKS.****FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well known class of

**ENGINEERS' & MACHINISTS' TOOLS,**

SHAFTING, GEARING,

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.



**MATHEMATICAL INSTRUMENTS.**

**T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,  
CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.  
Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines, 28 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS,**  
President.

Also, for sale, two Twenty Horse Power Stationary Engines.  
Aug. 9 4t

**THE SCHENCK****MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**

No. 163 GREENWICH STREET,  
NEW-YORK,

**KEEPS** constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR.

Aug. 9 1y

**D. D. MILLER,**

Manufacturer of

**LOCOMOTIVE, RAILROAD AND HAND LANTERNS,**

190 Water Street, New York.



**Railroad Printing.**

**WE** have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

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Railroad Record Office, 167 Walnut St. Cin.

**Myers' Patent Cylindrical Car.**

**NOTICE.**—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

**W. CLOUGH,**  
South-western Car Works.  
Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,  
CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action  
**SUCTION & FORCE PUMP**

AND  
**Compound Steam Pumping Engine,**



**WOULD** respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.  
Orders thankfully received and promptly filled at the shortest notice.

**SILVER MEDAL.** (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-ly

**IRON BOILER FLUES.**  
**PASCAL IRON WORKS.**

**MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**  
1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**  
From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

**Warehouse, 85 South Third St.,**  
**PHILADELPHIA.**

**TO CONTRACTORS.**

**PROPOSALS** will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Grainger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly CASH.

**R. L. OWEN, Chief Engineer.**  
Aug. 2, 1855. aug2 12w

**THE KENTUCKY  
MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.  
**P. DUDLEY,**  
President of the Board.  
Jy26 2m

**COLUMBUS, PIQA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

**A. G. CONOVER, Superintendent.**  
Piqua, Sept. 13, 1853. Sept. 29-1f

**Terre Haute & Richmond R. R.****Summer Arrangement.**

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

**EXPRESS TRAIN** leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40

**MAIL TRAIN** leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

**TERRE HAUTE TO INDIANAPOLIS.**

**MAIL TRAIN** leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

**EXPRESS TRAIN** leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.  
May 28, 1855

**S. HUETIS Superintendent.**

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c., and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

**RETURNING.**—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

**HENRY O. AMES, Sup't.**  
The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**

**St. Louis, Chicago, Galena & Rock Island,**

BY THE WAY OF THE

**CINCINNATI, HAMILTON & DAYTON,**  
**AND EATON & HAMILTON R. R.**

TO CHICAGO, in.....15 HOURS.

TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

**THROUGH BY DAYLIGHT TO TERRE HAUTE,**  
**LAFAYETTE, PERU, &c.**

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN**—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

**SECOND TRAIN**—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

**THIRD TRAIN**—Richmond and Indianapolis Accommodation—at 6.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....50

" Terre Haute.....575

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

**M. L. MITCHELL, Agent.**  
The Omnibus Line, will call for passengers by leaving their orders at the offices.

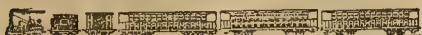
**WM. H. SMITH, Conductor.**

**D. N. MORROW, Superintendent.**

Feb. 8-ly



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from All Parts of the West,

ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

## Philadelphia and New York Railroads.

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

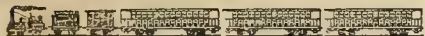
J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

TO LOUISVILLE  
IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M., and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front Street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.  
call on orders left at the Ticket Offices.

Omnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of

**STEREOTYPING,**  
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cut, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.  
C. F. O'DRISCOLL,  
186 1-2 Vine Street, Cincinnati, O.

1855. New Arrangement,  
COMMENCING MONDAY, JULY 16.LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAI'D WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," said with heavy T iron. "Remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.  
CINCINNATI TO CLEVELAND in 8½ hours.  
CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¾ hours. |
| To Cleveland in.....    | 8¾ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30¾ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburgh in.....   | 14 "      |
| To Philadelphia in..... | 30¾ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami) Depot, East Front street.

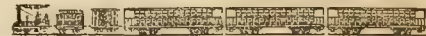
Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## PERU &amp; INDIANAPOLIS R. R.



Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent.

Indianapolis, March 22, 1855.

## Covington and Lexington Railroad.

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Falmouth, Cullerville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

## RATES OF FARE.

|                             |        |
|-----------------------------|--------|
| Covington to Lexington..... | \$3.00 |
| Covington to Paris.....     | 2.40   |
| Covington to Cynthia.....   | 2.00   |

## FOR THROUGH TICKETS.

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington. J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices oct.17\* CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

VIA LAWRENCEBURG.  
In connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and Lafayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street. SIDNEY RICE, Agent.

Cincinnati, June 12, 1855.

W. G. ATKINSON,  
Civil Engineer, Surveyor & Draftsman,  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared.



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNIS & PECK,  
Louisville, Ky.

**Norris' Locomotive Works,**

PHILADELPHIA.

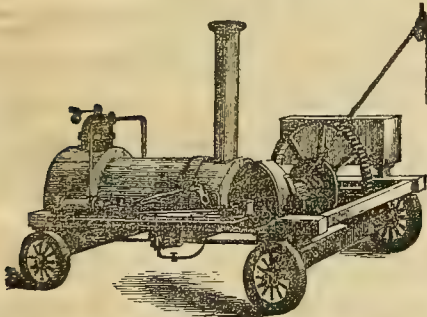
ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**A. L. ARCHAMBAULT'S**

PORTABLE STEAM

**HOISTING & PUMPING ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,  
S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

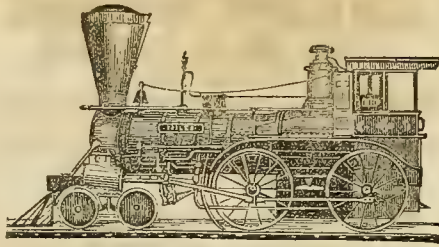
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the MERCURIAL GAUGE, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MRS. DURAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for Iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs on ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846-6\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.**

**JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH & RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th, 1853. mar1-f

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

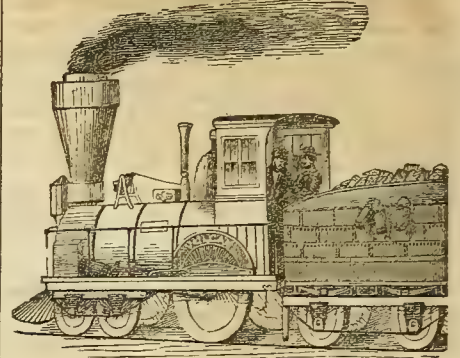
CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. jyt3.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 MOORE & RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

Late of the firm of T & E. Wason, Springfield, Mass. ap.20

**Railroad Car Findings.**

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Castings Fit Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**  
Of any required width to 124 inches.  
**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight, Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers.

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.

toc6

**CAR MANUFACTORY,**

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

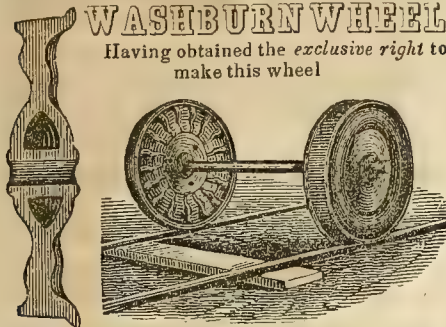
They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan.25-†



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the *exclusive right* to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap. 12

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**

Muskingum Works, Zanesville, O.

J. DAVENPORT. . . . M. D. WELLMAN. . . . C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

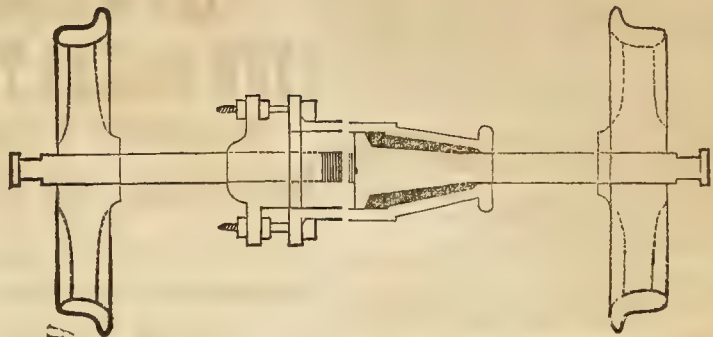
Feb. 16th

JOSEPH DAVENPORT.

### S. C. THOMSON & CO., MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n. 124 NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**

Gap, Pa.

**MCDANIEL & HORNER,**  
**LOCOMOTIVE AND CAR SPRING**

## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

**NORRIS BROTHERS, Locomotive Builders, Philad.**

**A. C. GRAY, Prest. New Castle Manuf. Co.**

**U. WELLS, R. R. Car Manuf. Petersburg, Va.**

**I. R. TRIMBLE, Supt. Philad. R.R. Co.**

May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.**

**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**

**THOMAS DOUGHERTY, Master Mach. do.**

**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.**

### DURYEE & FORSYTH'S PATENT

## PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec 27

53 and 85 Walnut Street.

### THOS. M. CASH,

## PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

### REFERENCES.

**Richard Norris & Son, Locomotive Builders, Philad'a,**

**Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "**

**Charles H. Fisher, Esq., "**

**Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C**

**Pinckney Huger, Esq., Pres't N.E.R.R. Co. "**

Oct. 13-14.



**Parry's Anti-Friction Box,**

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to  
JOHN RICE & CO., Patentees,  
90 South Fourth street, Philadelphia.

**READ THE FOLLOWING CERTIFICATES.**

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

Mr. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

Mr. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,  
H. J. LOMBAERT, Superintendent.  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms, to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,  
STRICKLAND KNEASS, Civil Engineer.

# 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES, For Smith's use, and WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

### CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES, For Railway Wheels. Railway Axles and Springs, SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

## FRIED. KRUPP,

Essen Rhenish Prussia.

Represented solely in the United States by

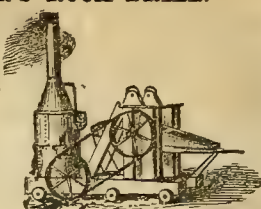
## THOMAS PROSSER & SON,

28

PLATT STREET, New York!

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

nov17+

G. ARTHUR GARDNER,  
Trinity Building, N. York.

## Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

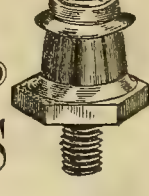
The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,  
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

## General Map Establishment, No. 3 College Hall, Walnut St., Cincinnati

## E. MENDENHALL, MAP, BOOK & PRINT SELLER,

Has constantly on hand  
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Geological and Astronomical Charts, Globes,  
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DRAWING INSTRUMENTS, &c.

Publisher of the  
Railway Map of the Western States,  
In Sheet or in Pocket Case;  
The LARGE SECTIONAL and RAILWAY MAP OF OHIO,  
the LARGE MAPS OF CINCINNATI, and HAMILTON CO  
Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
MAPS OF EVERY DESCRIPTION.



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, { Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING,.....OCTOBER 11, 1855.

OUR EUROPEAN AGENTS FOR THE RAILROAD RECORD ARE  
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and Colonial Newspaper Advertisement Office.

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London, England.

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LOUISVILLE & NASHVILLE R. R.—The Louis-  
ville & Nashville Railroad has been completed  
to Shepherdsville, and cars are now running to  
that point.

VOL. III.—No. 33.

### THE OHIO & MISSISSIPPI RAILROAD COM- PANY; WEST END.

Having made a careful review of the affairs  
of this Company, based only on facts furnished  
by the Committee at St. Louis, we supposed  
the subject, as to ourselves, at an end. But  
we find in the St. Louis *Intelligencer* an angry  
article, written, obviously, by an attorney *de*  
*facto* of Page & Bacon, purporting to be a  
reply to our article. There are but two or  
three points made, which are worth atten-  
tion, and those we shall notice.

*First.* The writer proceeds throughout on  
the idea, that we *blamed and assailed* Page &  
Bacon for the blunders and errors, and waste  
in the construction of the St. Louis Road.  
We think it likely they are as much to blame  
as any one; but *we* did not assail them. By re-  
ference to the *Railroad Record* of Sept. 13th,  
(containing the article in question,) it will be  
seen that we have *not* charged Page & Bacon  
with any other blame, than that of (probably)  
creating a Board of Directors to suit them-  
selves.

*Secondly.* The writer *denies* that Page &  
Bacon received a commission of 3½ per cent.  
on the purchase of the iron; and after deny-  
ing the fact, proceeds to examine it, by say-  
ing the *contractors* paid it! What if they  
did? It is one item in the cost of the road.  
Will any man, at St. Louis, of any character,  
deny that Page & Bacon received *commis-*  
*sions, discounts, etc.*, on the money, and the  
business which passed through their hands?  
Will any one of that Board of Directors, (for  
their own sakes, if not for ours), furnish us  
with the whole account of *commissions, dis-*  
*count, and interest* paid to Page & Bacon for,  
and on account of the Ohio and Mississippi  
Railroad?

*Thirdly.* A slight, and very slight attempt  
is made to account for the extra expenditure  
of \$2,500,000.

The first item of *extra stone work* is admit-  
ted, and only reply that Page & Bacon were  
not members of the Board. What of it?  
What has that got to do with the expendi-  
ture? It was a hundred thousand dollars  
thrown away.

The next item, the change of location and  
grade on the American bottom, Mr. "Exami-  
ner" throws on Mr. Mitchel. But the only  
thing the "Committee" say, is, that Mitchel  
wrote if they changed the grade they would  
have to pay for it!

The writer next says, the Board thought  
they made "*a good compromise*," etc., with  
Sanger, Camp & Co. Suppose they did make  
a good compromise, when they had got into  
the scrape; the question is, by what folly did  
they get into it? We are not disposed to  
blame either Mr. Bacon, the Board, or any  
agent of the Company, beyond the measure  
which they themselves show to be due. But  
the world asks: "How came this road to cost

double what the contract required?" Why,  
in answering this question, do they turn from  
the plain and palpable *fact*, that they *changed*  
the *contracts*, and occasioned the cost themselves,  
to blame others who could not prevent that  
change?

We do not agree at all—the question is  
whether the changes were for the *ultimate*  
benefit of the road. Whatever opinion may  
be formed of that, it is certain the new con-  
tract made with Sanger, Camp & Co., was  
not a benefit, and the Committee show in just  
so many words and figures, that the actual  
cost of these changes was a *million and a half*  
*of dollars!* It was a palpable absurdity to  
give Sanger, Camp & Co. \$350,000 for pre-  
tending to do what it was their own interest  
to do, and an equal absurdity to pay them  
*double* for their *claims*.

The whole matter lies in a nut-shell. The  
Directors fell into the common folly of flush  
times—imagining they could get any amount  
of money for any purpose, and found, too late,  
their mistake. The real error is in endeavor-  
ing to blame other people for their own mis-  
takes. We have no doubt that the same mis-  
take has been committed at this end—except  
the *settlement*.

Our views of Western Railroads, or, of this  
particular Road, have not changed. Confined  
within any moderate limits of cost, and man-  
aged with prudence, we believe the stock of  
most Western railways will be the best in the  
country. The *Ohio and Mississippi Rail-*  
*road* was placed under a general *contract* to be  
finished for \$9,000,000. There was no pros-  
pect that it would be *entirely* finished in less  
than four years, and for at least half that  
time *interest* must be paid on half the money,  
which would not amount to less than seven  
hundred thousand dollars. Interest was like-  
wise paid on stock, (in scrip), which in that  
time would amount to \$500,000. The rights  
of way, additional depots, and a dozen other  
things would come to \$1,000,000,—then there  
were discounts, &c.

It was plain enough from the first that the  
Road would cost \$12,000,000 *in the end*.  
That it has cost more than that, arises from  
*changes of contract, enormous discounts* on new  
loans, *enormous interest* for temporary loans,  
*enormous sacrifices of stock* then on the mar-  
ket, in an attempt to sustain the credit of the  
Company.

Now, we do not argue the wisdom of these  
measures. They were well intended. But  
we only say, that the attempt of one set of  
agents to throw the blame on another set, is  
both wrong and silly. It is equally wrong  
and silly to attempt to conceal the *real and*  
*main fact*, that the Board of Directors, by  
their own acts, voluntarily increased the cost  
of the Road to a great amount. Wishing  
our reviewer a better temper, and more accu-  
racy in accounts, we leave the subject.



**GALVESTON, HOUSTON & HENDERSON R. R.**

It is reported that this Company have recently negotiated a large amount of their securities in Europe, without the aid of New York brokers. The Company have addressed themselves directly to European capitalists, and met with favor without feeling a New York medium to say that their statements are true. The bold and impudent (independent,) course of this Company, in this matter, has alarmed the Wall Street Operators, they see in this operation a prestige of future action on the parts of others, and par consequence their profits in such business growing beautifully less. Hence, they are out in last week's Railroad Journal with a sideway thrust at the road. But, as the article to which we refer, contains some interesting and unique ideas, we give it in full:

The recently reported negotiations on the Continent of the bonds of this company, has excited considerable remarks, and some uneasiness on the part of Houses in this city engaged in the negotiations of railroad securities. The foreign demand can be kept up by supplying it with *first class securities* only. This matter is so well understood that should one leading House offer anything which is not regarded as first class in our market, they would instantly ruin their business. For this reason the only safe course for foreigners is to buy through such Houses; as they will then be certain of getting securities that are *reputed* to be good, where their character is best known. On the contrary, if they buy into a scheme brought out in their own country, unaccompanied by the guarantee above named, they run a great risk, and will very probably get taken in. The reason why securities are brought out in Europe, and not under the auspices of an American house, is because they will not sell here. In such case, the foreigner, if he buys, takes what would be refused by our people, who certainly have the best means of determining the sound from the unsound.

In the above instance, the bonds may be entirely safe; but who is there to satisfactorily answer this inquiry? The company bring out the loan in Europe. They represent, as they undoubtedly believe, their securities to be good. But such representations are not evidence. Now what assurance has the foreign purchaser that the bond he is buying is a good one? We can see none. We can find no competent parties in this city who know anything about them; neither can we find any one who ever before heard of the firm of *Micard, Valentine, Coleman & Co.* Is there such a firm? If so, what guarantees has it ever given that entire fidelity may be reposed in it? We have heard it doubted whether it could give satisfactory references in this country. But be this as it may, certainly when a large loan is pending in Europe, it is not too much to say that the fact that it has no one who stands sponsor for it in New York, is an unfavorable feature. As a general rule, we may state that no foreigner should buy a security which is not well vouched for by a respectable American House.

The reasons for such a precaution are obvious. The traffic in railroad securities can be maintained only by keeping up the *quality*. We know of no respectable House in this city that would undertake the negotiation of a class of bonds that would not be considered sound by parties best informed. Experience has taught our people the conditions necessary to constitute a good bond. Of these a foreigner may be entirely ignorant. The latter, therefore, if he would avail himself of every means of safe-

ty, must take the sense of our people in any given case as guaranteed to him by some responsible party.

Our object in this instance is not to controvert the value of the Galveston, Houston and Henderson Railroad Company, for we are as ignorant of their merits as everybody else appears to be. We make use of the occasion of their being offered, to lay down what we consider wholesome rules to be observed by the purchasers of railroad securities. With their proper observance, we believe railroad bonds offer the safest and most productive investments for capital that exist. When they are violated the unwary must not complain, if through want of due caution they find themselves taken in.

Precisely. Independent action on the part either of American Companies or European capital, will cause "*some uneasiness*" in Wall St. This might be expected. It reduces their commissions, hence they feel uneasy and take the opportunity while commenting severely on such conduct to lay down "*wholesome rules* to be observed by the purchasers of railroad securities."

"As a general rule, no foreigner should buy a security which is not well vouched for by a respectable American House," in other words by a respectable broker in New York. But here the rule stops short, how is the foreigner to know who is a respectable American broker? Ah, there is the rub; a man can determine how much a security is worth as easily as he can discover who will honestly tell him its worth. If it will add to the consolation of these operators, in this significant fact, we will tell them that many millions have recently been invested in the West by European capitalists who have either come to see for themselves, or have relied upon respectable authorities out of New York for the facts on which they based their loans. The New York market is, in fact, one of the least reliable markets in the world for those outside its own circle. In times of inflation it puffs up the highest, and in times of depression, it falls the lowest of any market in our country. The standard there is not intrinsic value or safety of investment; but, what will it bring *now*, under the hammer at this moment, even should the auctioneer mount a dry goods box and call a casual crowd. The moment a security ceases to be instantly saleable, it loses its value in New York, notwithstanding the interest may be paid with regularity, and the principal when due. This matters nothing to the stock operator. The money he has, must be kept moving lively, and like the gambler, he must make or lose every day.

Now we do not know why the Galveston Houston and Henderson Company preferred to apply directly to European Capitalists at their own home, but we venture to say that if a year ago, N.Y. brokers had dared to look at intrinsic value, and instead of crying down every railroad security, whether good or bad, had received with even decent courtesy the overtures of companies that felt that they had a

respectable basis on which to operate, and were not what too many New York projects are, paper schemes, this company would not have turned their attention to Europe, but like others would have been content to have paid the brokers to negotiate for them.

It is thus that by her panic stricken folly New York is losing some of the commissions which have hitherto been paid by parties who needed money. And she will lose more: European Capitalists and Eastern Capitalists out of New York have learned that there is a great world outside the brick walls and busy limits of New York City. They have some of them already seen some of that great world, and they will see more.

**RAILROAD MAP OF THE UNITED STATES.**

Our readers will find in the advertising columns, our advertisement of a *new* Railroad Map of the United States, corrected up to present date. The topography of the map has been laid down with great care, especial reference being had to precision in locality. The railroad routes are laid down from the latest authorities, and are believed to be correct.

This is the **LATEST** and **BEST** RAILROAD MAP published in the United States, and is put at such terms that railroad companies can supply their offices and station houses with a handsome and correct map at a trifling cost.

A liberal arrangement will be made with companies wishing maps to accompany reports.

**FORM FOR THE ANNUAL REPORT OF THE RAILROAD COMPANIES OF THE STATE OF NEW YORK.**

We are indebted to Mr. McAlpine of the railroad commission of the State of New York, for a blank book of forms of report for the present year.

New York requires of her railroad companies an annual statement of their affairs, made by their managers under oath, and to secure uniformity and lighten the labor of preparing the report, supplies each company with a blank form book, which needs only to be filled out to represent in concise shape, the business of the year and the prospects of the company. In these forms the companies are required to state their capital stock subscribed, the same paid in as per last report and at the present time, the various classes of stock, number of shares of each, the funded debt as per last report and the present, the floating debt as per last report and now, the total amount of funded and floating & the rates of interest paid. In the item of construction the companies are required to report the items of graduation and masonry, bridges, superstructure, including iron, passenger and freight stations, buildings, fixtures, engine and car houses, machine shops and machinery, land damages and fences, locomotives, freight cars, &c., and all other articles of property owned by the company. These reports also include the



characteristics of the road, length of line, double track, sidings, branches, weight of rail, &c. This same thorough system is pursued through every department connected with the management or construction of railroads.

It requires but a moment's thought to perceive some of the many advantages to be derived from regular and reliable reports of the character before mentioned. The experience of these roads, carefully collated, compared and published is of great value to the science of railroading, it establishes precedents of economy or expenditure, of great value to the manager. It is to be regretted that every State does not insist upon a similar system of thorough and searching reports."

**DESTRUCTION OF CAR WORKS AT CHICAGO.** We regret to learn from the *Chicago Press*, the destruction by fire of an extensive car manufactory at that city. Loss about \$60,000. The fire is said to have been the work of an incendiary. None know so well the misfortune of a fire, as those who have been scorched by the flames. Having once passed through the ordeal, we know how to sympathize with others equally unfortunate.

**LEXINGTON & UTICA RAILROAD CO.**—The Legislature of Missouri, at its last session, chartered a company to build a railroad from Lexington to Utica, on the line of the Hannibal & St. Joseph R. R., with the privilege of extending the road to the northern boundary of the State. The proposed road will commence at Lexington, on the Missouri River, and runs through Lafayette, Ray and Carroll Counties to Utica, on the west bank of Grand River, in Livingston County. This is a growing section, and would undoubtedly receive a still greater impetus from the proposed road.

**WHAT RAILROADS DO.**—The following paragraph from the Athens [Tenn.] *Post*, shows what railroads do for farmers. The farmers of the three counties named, derive a clear profit this year alone, on the single article of wheat, of more than \$200,000, from the railroad. Their 400,000 bushels of wheat sells for \$200,000 more than it would have realized if there had been no railroad to take it off:

**WHEAT.**—The price continues at one dollar. One hundred and nineteen wagons unloaded at the depot here on Thursday, the 6th. This county will export, of the late yield of the harvest, one hundred and sixty thousand bushels. Other counties along the line of the railroad will perhaps do as well. The three counties of Bradley, McMinn and Monroe, from the information now in our possession, we have no doubt will sell for export over 400,000 bushels at an average of one dollar per bushel. Here, then, is the snug sum of between four and five hundred thousand dollars diffused among the people of these counties for the single article of wheat alone—the product of a single harvest. How much wheat did these same counties export before the railroad was built, and at what price? Not more than twenty-five thousand

bushels, and that small amount was sold at an average of fifty cents per bushel. In the meanwhile, lands have quadrupled in value, and the owners have actually become rich by the enhancement almost without any effort of their own. Wonder if people ever think of these things when they are complaining at the road's inability to do three months' work in a single week?

**CORN STARCH MANUFACTURE.**—The *Peoria News* notices the erection in that place of a large establishment for the manufacture of corn starch. The building is a 160 by 60 feet, three stories high, to cost \$30,000 or \$40,000. It is expected to be in use the coming winter. With the present bountiful supply of corn, it is expected that this will be a profitable investment.

#### EVANSVILLE AND CRAWFORDSVILLE R. R.

The following is the return of the election of Directors on this road, held Oct. 1, 1855:

G. W. Rathbone, M. W. Foster, John Ingle, jr., J. Laughlin, jr., S. T. Jerauld, Wm. Burtch, J. W. Maddox, Joshua Alsop, J. A. Garret, W. D. Griswold, C. Rose, G. R. Steele and P. E. Harris.

WM. D. GRISWOLD, Esq., was subsequently re-elected President of the Board.

#### CINCINNATI, CUMBERLAND GAP & CHARLESTON RAILROAD.

We make the following extract from a letter written to us by one of the officers of the Company, and will take pleasure in hereafter noticing the work.

"I sent to you a printed copy of the proceedings of the Cincinnati, Cumberland Gap and Charleston Railroad Convention, held at Ashville, N. C. I now enclose to you the proceedings of the French Broad and Greenville Railroad Convention, held at Greenville, S. C., both of which had for their object the consideration of the prospect, and the best mode of building in the speediest manner the above named railroad. I hope it will meet your approbation to give publication in your very ably edited Journal to said reports, with such comment as the subject merits.

"You will observe from the report of our Engineer in chief, and the reports of those railroad conventions, that the entire country south of Cumberland Gap, on the line of our road, is quite alive to its immediate construction, and if Kentucky and Cincinnati will do their part, in a few years the steam engine, with its vast train, will pass daily over this great road—equaled by none in the United States, in an agricultural, manufacturing, commercial, and military point of view—it will be a road of the first magnitude and importance in all of its relations, and will do more than any other railroad project, either complete or projected, to make Cincinnati and Charleston great commercial and prosperous cities.

"We are anxious to see Kentucky and Cincinnati awake from their apparent lethargy,

and take hold of this mighty enterprise with energy and zeal, and a determination to co-operate with us in accomplishing a work pregnant with so deep an interest to the whole country."

#### EDITORIAL CORRESPONDENCE.

NEW YORK, October.

*Railway Time; Topic of the Day; Fall of Sebastopol; What would have prevented it; Influence of Railways on War; The Russian War; Opposite Ideas; the War Advances Civilization.*

You must not blame me, my dear *Record*, for a long silence. I got caught in the world's great maelstrom, and have been whirled round, till my mind is unsteady; and I shall not be fit for your grave society, till I am extricated. Yet, I have seen and heard many things which interest you, and I will make a note by the way. First, the railways, *your* ways, such as lie in this direction, are in excellent order, and their *time-pieces* are in excellent order. I was about *twenty-eight* hours in coming *eight hundred miles*, which you see makes a constant average of about *thirty miles per hour*. The most remarkable fact in such a transition, is that *each station should be so exactly reached in due time*. Certainly, in flying over thousands of miles, in which there are thousands of things which might interrupt a train, this is a remarkable fact. Say what we will of American careless, and reckless daring, this is a remarkable fact. Consider the newness of our country; the vast extent of railways; the tens of thousands of persons employed in their management; consider the want of double tracks; and the want of exterior grounds; and, most especially, this exactness and promptness is remarkable. This is, beyond a doubt, the great railway nation.

Next, let me say something of what everybody says much: I mean the fall of Sebastopol. It is the topic of the day, and no wonder; for, beyond doubt, it is the great event of the day. The fall of Sebastopol, includes the fall of the Crimea, the fall of all southern Russia, or so much as the Allies may choose to take, and ultimately the entire destruction of Russian commerce, and influence in the Orient. But, *why* did Sebastopol fall, and why does it involve such important consequences? Simply, and only because, *there are no Railways in Southern Russia*. This observation "smells of the shop," for you, Mr. *Record*. It is, nevertheless, positively true. It is palpable, that if Russia had kept the peace for twenty years, Sebastopol could not have been taken. Why? Because in twenty years, Russia would have made railways to Sebastopol, and every other assailable point. These railways would have carried armies and munitions of war rapidly and cheaply. They would have made it easy to concentrate an army on any point, and to have doubled the actual Russian Army in the Crimea. This Russia could have done *with* Railways.



What has she done *without* them? It has cost her the lives of 150,000 soldiers, millions of money, and wasted munitions in equal proportions only to *keep up* her army, without counting the losses of the field! The great plains or *steppes* of Russia, have been almost impassable. On the other hand, the Allies have had a comparatively easy and short transit by their command of the sea. Probably Russia intended to have completed her railways; but, the conversation of the Emperor about the "sick man," let the cat out of the bag, and it was interrupted suddenly in its career of policy.

In New York, the talk is all about Sebastopol. The first question is—"what next?" As usual, there are two opinions. One party, (the fewest, however,) think that the Northern Forts may be maintained. The others, that the Russian army will retreat immediately. For myself, I have arrived at the following conclusions, viz:

1st. That the War will *not* be concluded immediately; but, on the contrary, will be prolonged.

2dly. That the Russian Army will not retreat immediately; but, will attempt a defense of the North part, and a reinforcement.

3dly. That sooner or later this will fail from the want of provisions, and the superior strength of the Allies.

4th. And, finally, if this course be adopted, it will probably occasion the loss of the entire Russian Army, and the utter loss of the whole line of defense from Perekop to the Caspian Sea.

I regard the fall of the Crimea, as the most serious loss the Russian Empire could meet with, as its conquest was undoubtedly the most important of the numerous accessions it has been gradually making for the last one hundred and fifty years. With this fresh expression of opinion, I remain yours, my dear *Record*, in the bonds of love. E. D. M.

**KEOKUK AND FORT DESMOINES RAILROAD.**  
The *Valley Whig* learns that an arrangement has been made with capitalists in New York for the purchase of the iron for the first division of the road from that place to Bentonsport. The purchase has been made with the bonds of the city of Keokuk, thus leaving the entire subscription and credit of the road to be applied to the preparation of the work for the rails.

This arrangement, says the editor, renders the construction of the road a sure thing, without any risk of delay or embarrassment, and, therefore, furnishes the strongest inducements for the prompt payment of the installments by the present stockholders, and for additional subscriptions of stock.

## Railroads.

### TENNESSEE AND ALABAMA RAILROAD.

We give to-day a few extracts from the Third Annual Report of the directors of this important road. The Engineer says:

"At the close of the year ending June 30th, the condition of the Tennessee and Alabama Railroad is as follows:

|                                                                                               |            |
|-----------------------------------------------------------------------------------------------|------------|
| Length of road graded ready to receive the superstructure, from Nashville to Spring Hill..... | 31½ miles. |
| Length " ballasted six inches deep.....                                                       | 30 "       |
| " " main track laid.....                                                                      | 21½ "      |
| " " sidings.....                                                                              | 1 "        |

"Since the preceding Annual Report, the contracts for construction then in force, have, with a single exception, been closed, and final estimates returned. Thirty miles of the road is covered with broken stone six inches deep, and it is designed to put on an additional six inches after the track is laid, bedding the cross-ties thoroughly in it, and filling between and over them. Nearly the whole quantity necessary has been provided, partly by the negro force employed by the Company last year, and partly by contract. By the close of the present year enough will be ready to put the road in a thorough state of efficiency, and during the coming autumn, when slave labor can be readily and cheaply procured, a train with a strong force should be put in, to fill and adjust the track, and put it in good order before the heavy winter rains set in. This is believed to be the true economical course to pursue, for, though costing most in the first outlay, it will in a very short time be saved in expense of repairs and freedom from accidents.

"The track-laying was commenced July 21st, 1854, at Nashville, but was much retarded from the want of materials. Owing to the lateness of the season when the iron was delivered at New Orleans from England, it was impossible to have it brought up Cumberland river last summer, and it was not till the middle of January of the present year that the last of it was received at Nashville. The delay in the delivery of the iron at New Orleans has delayed the completion of the road to Spring Hill from six to nine months, losing to the Company nearly all the business of the last season, besides leaving the large amount invested in the work wholly unproductive.

"The track reached Franklin, eighteen miles from Nashville, at the end of February, and trains commenced running regularly between Nashville and Franklin the 6th of March. Beyond Franklin, tracklaying was resumed June 11th, and will reach Thompson's, twenty-seven miles from Nashville, by the middle of August. To extend it to that point, it will be necessary to lay down in the main track for two miles the rails provided for sidings. The iron for the main track weighs one hundred tons per mile, and but twenty-five hundred tons were purchased. The siding rails weigh seventy-seven tons per mile, but are of ample strength to bear the traffic over the road for the next three or four years, or until it is extended beyond Mt. Pleasant. It being contemplated to procure

immediately an additional supply for completing the track to Spring Hill, it is advisable, if those of the present pattern cannot readily be obtained, to purchase others of about the same weight as the present siding rails, and when the track is extended beyond Spring Hill, heavy rails can be substituted, and these used as needed for side tracks.

"The fastenings at the joints of the rails used on this road are peculiar, being made with two bars of iron, or fishes, one on each side of the rail, eighteen inches long, and held in place by four bolts through each. The expansion of the rail is provided for by making the hole in the rail through which the bolt passes, of an oblong shape. The fishes are so formed as not to press the sides of the rail, but against the head and bottom flange, and can be very tightly drawn by the bolts. The design is to make a stiff, firm joint, which is so perfectly accomplished, that the wheels pass the joints without apparent jar or motion to indicate the presence of a break in the rail. This simple contrivance probably answers every good end of a compound rail, without its increased number of parts, greater expense, difficulty of laying, and keeping in order.

"The cost of 'Local Work,' to June 30, per final estimates, is as follows:

|                                                        |              |
|--------------------------------------------------------|--------------|
| Grading and Masonry.....                               | \$217,888 11 |
| Bridging.....                                          | 4,748 84     |
| Ballasting.....                                        | 43,910 07    |
| Timber, including cross-ties, Road crossings, etc..... | 29,027 96    |
| Engineer Department.....                               | 23,141 21    |
| Contingencies.....                                     | 2,973 68     |

|                                  |              |
|----------------------------------|--------------|
| Total cost of local work.....    | \$321,689 87 |
| Cost of local work per mile..... | 10 212 37    |

"Of the above \$110,000, or more than one-third the whole amount, has been paid in stock of the Company, to contractors living on the line of the road in its vicinity."

The amount paid out for Track and Equipment, is as follows:

|                                                            |             |
|------------------------------------------------------------|-------------|
| Frogs, Chairs, Spikes, Switches, etc.....                  | \$ 7,947 57 |
| Laying Superstructure, including hauling of Materials..... | 10,355 51   |
| Building and Fixtures.....                                 | 1,415 40    |
| Locomotive Engines.....                                    | 17,053 64   |
| Cars.....                                                  | 9,544 98    |
| Tools and Machinery.....                                   | 88 93       |
| Insurance, marine and river.....                           | 11,250 13   |
| Duties.....                                                | 25,860 00   |
| Ocean Freight on Iron.....                                 | 24,972 11   |
| Freight (river, etc.) on Engines, Iron, etc.....           | 28,366 26   |
| Engineering and office expenses.....                       | 3,085 39    |
| Interest, Premium and Discount.....                        | 7,946 60    |
| Incidental Expenses.....                                   | 1,304 29    |

|                                                    |              |
|----------------------------------------------------|--------------|
| Total amount expended for Track and Equipment..... | \$149,210 81 |
|----------------------------------------------------|--------------|

|                                                                                                                                                               |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| To complete the track to Thompson's and provide the necessary conveniences to accommodate next Winter's business will require.....                            | \$30,000 00 |
| Amount due by the Company for Iron, Buildings, etc.....                                                                                                       | 143,505 44  |
| For new iron, 100 tons per mile to complete road to Spring Hill, 30 miles from Nashville, with spikes, freight, duties, insurance, laying six miles, etc..... | 43,000 00   |
| Buildings and Fixtures at Spring Hill.....                                                                                                                    | 2,500 00    |
| Amount expended as per above statement.....                                                                                                                   | 149,210 81  |

|                                  |              |
|----------------------------------|--------------|
| Cost of Track and Equipment..... | \$358,215 25 |
| Amount for Local Work.....       | 321,689 87   |

|                                  |              |
|----------------------------------|--------------|
| Total cost in running order..... | \$679,906 12 |
| Cost per mile.....               | 21,684 32    |

The following from the report of the Treasurer, will show the financial condition of the Company:



|                                                         |                |
|---------------------------------------------------------|----------------|
| Capital Stock, 21,196 $\frac{1}{2}$ shares of \$50..... | \$1,059,820 97 |
| Individual subscriptions.....                           | \$839,820 97   |
| Original ".....                                         | \$725,000 00   |
| Subsequent ".....                                       | 1,300 00       |
| Maury County ".....                                     | 80,000 00      |
| Broad Street ".....                                     | 30,000 00      |
| By Contractors.....                                     | 3,520 97       |

|                                    |            |
|------------------------------------|------------|
| Bonds of the Town of Franklin..... | 20,000 00  |
| " Davidson County.....             | 200,000 00 |

|                                            |              |
|--------------------------------------------|--------------|
| RECEIPTS—                                  |              |
| Total Cash received to July 1st, 1855..... | \$246,486 82 |

|                                                |              |
|------------------------------------------------|--------------|
| DISBURSEMENTS—                                 |              |
| Cash paid on account of Con-<br>struction..... | \$144,234 78 |

|                                                                                              |           |
|----------------------------------------------------------------------------------------------|-----------|
| DEBT—                                                                                        |           |
| Bills, Notes, President, Interest,<br>Discount, Premium, Ex-<br>change, Acceptance, etc..... | 63,589 34 |

|                                                                                                                                                     |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| EXPENSE—                                                                                                                                            |          |
| Salaries, Ins'tments, Office Ex-<br>penses, Lawyers' Fees, Fire-<br>wood, Printing, Sta'tery, Costs,<br>Commissions, B'ds, Transpor-<br>tation..... | 3,712 09 |

|                                                        |           |
|--------------------------------------------------------|-----------|
| REAL ESTATE—                                           |           |
| Station grounds, Real Estate,<br>and Land Damages..... | 9,133 04  |
| Engineering.....                                       | 16,873 71 |
| State Coupons.....                                     | 4,770 00  |
| Duties on Iron.....                                    | 2,500 00  |

244,812 96

|                                  |             |
|----------------------------------|-------------|
| Cash on hand July 1st, 1855..... | \$ 1,673 86 |
|----------------------------------|-------------|

|                                              |              |
|----------------------------------------------|--------------|
| Stock paid to Construction.....              | \$104,231 63 |
| " " account of Agencies<br>and Salaries..... | 4,865 00     |
| " " Expense of President.....                | 200 00       |
| " " Real Estate.....                         | 971 56       |
| " " Engineering.....                         | 195 87       |
|                                              | \$110,464 06 |

"In June, 1854, application was made to the Governor of the State for State bonds, for the first thirty miles. In July following, three hundred bonds of the State of Tennessee, of \$1,000 each, with coupons attached for the semi-annual interest, falling due in January and July, were executed and delivered to the President of the Company. Owing to the stringency in the money market, and want of confidence in many bonds that were pressing upon the market, it was difficult to make sale of the bonds, except in a small retail way.

"One hundred and fifty seven bonds have been disposed of, and the proceeds applied to the payment of insurance, freights, duties, machinery, and such other equipments as are prescribed by the act of the Legislature authorizing the issuance of the Bonds. One hundred and forty-three bonds remain unsold, but are held in reserve for the purpose, in part, of settling the debt due Messrs. Thompson and Fooman on account of the purchase of the iron."

It will thus be seen that the Capital stock of the Company is represented as follows:

|                               |                |
|-------------------------------|----------------|
| Capital Stock subscribed..... | \$1,059,820 97 |
| State Aid.....                | 1,110,000 00   |

\$2,169,820 97

The capital stock subscribed consists of—

|                                    |              |
|------------------------------------|--------------|
| Individual subscriptions.....      | \$839,820 97 |
| Bonds of the town of Franklin..... | 20,000 00    |
| Bonds of Davidson county.....      | 200,000 00   |

\$1,059,820 97

"The interest on the State bonds has been promptly and punctually paid by the Company.

"The Davidson county bonds, two hundred in number, of one thousand dollars each, payable twenty years after date, with coupons attached for the semi-annual interest, have been very recently executed and delivered by the Clerk and Chairman of the Davidson County Court, to the President of this Company. One hundred of said bonds, within the last ten days, have been sent to New York to be offered for sale in that market. We have not had time

as yet to ascertain the value, or at what price they can be sold."

The estimate of business for the road, is made as follows by the President:

"Taking the statement of population and products along the line of the road in 1850, at the time it was made, to be correct, since which period there has been an increase of at least one-fourth and without adding said increase, you have in said eight counties, 146,889 bushels of wheat, 42,182 horses, 18,062 mules, 8,714,143 bushels of corn, 27,239 bales of cotton, (all which goes to market,) 970,501 bushels of oats, 511,968 hogs, 1,733,764 pounds of tobacco, and 123,364 sheep, besides cattle, rye, hemp, and a variety of other things not herein enumerated, which are and can be produced in abundance, when the facility of reaching a market is afforded. The whole number of inhabitants in the eighth counties above named, is 169,024, as per census of 1850. Now we will show by making a calculation according to such rules as have proven to be good by experience of other roads, what will be the probable profits of capital vested in this road.

"The rule we will adopt is this: that as many way passengers will travel over the road as the entire population of the counties traversed by the road and interested in it, and that they will travel an average distance of one-third the length of the road; that the through passengers will be equal to one-fourth the same population, the way freight will be equal to half a ton to each inhabitant, carried half the length of the road, and that the through freight will be equal to a quarter of a ton to each inhabitant. By this rule, the calculations made results as follows:

|                             |           |
|-----------------------------|-----------|
| For way passengers.....     | \$250,500 |
| For through passengers..... | 191,250   |
| For way freights.....       | 191,250   |
| For through freights.....   | 191,250   |

|                            |           |
|----------------------------|-----------|
|                            | \$827,250 |
| For expenses put half..... | 413,625   |

Nett profits.....\$413,625

"The whole length of the road, say 111 miles, at a cost of \$25,000 per mile, will make the entire cost \$2,775,000; and upon that amount of capital, the above nett profits would be a small fraction under 15 per cent.

"We will not say that the above rule of calculation will, in every instance, hold out correctly, but it is admitted that with the exception of railways between large commercial cities, the greatest profits are derived from the way freights and way passengers on railroads. Then we all know that the first sixty miles of the Tennessee & Alabama Railroad passes over and through a country that will compare favorably with any other of the same extent in the Union. It is as well adapted and suited for residences, on account of its healthy and pleasant climate, as any other portion of the great valley of the Mississippi. It has as rich and desirable a soil, and as capable of producing as abundant and as great a variety of products as any other country of the same extent; and, therefore, if the foregoing rule will hold to be correct in other places, we are satisfied it will be found by experience to be

correct on the Tennessee & Alabama Railroad; more especially since the expenses of keeping the road in repair will be light, the probabilities are in favor of exceeding the per centum above specified."

## PEORIA AND OQUAQUA RAILROAD.

We find in the New York *Courier* the following notice of the offer of a quarter of a million of bonds of this road in the New York market. This road forms part of a chain extending East and West, parallel with the great lake shore line, and the lines through Indianapolis and Cincinnati. When these are all completed, there will be four main trunk lines between the great lakes and the Ohio river running East and West from the Mississippi to the Atlantic. It will be observed, however, that only two of these, the Northern and the Southern, pass through the great natural centers of trade.

THE PEORIA AND OQUAQUA RAILROAD.—Among the opportunities for the investment of capital which may be safely recommended, is that presented by the offer for sale of the Eight per cent. Bonds of the Peoria & Oquagua Railroad Co. of Illinois. The amount of these bonds is \$500,000, of which, we are informed, one-half is offered in this market. They have been issued to provide funds for the completion of the Eastern division of the road from Peoria city to its junction with the Chicago and Mississippi Railroad, a distance of fifty miles, and they are secured by a mortgage upon that portion of the work.

The Peoria and Oquagua Railroad will extend from the point of junction with the Chicago and Mississippi road westward through the city of Peoria, and the military track to the town of Oquagua, opposite Burlington, the chief commercial town of Iowa. The company have, by charter, the important and valuable privilege of a ferry over the Mississippi at this point. The road forms the western division of a direct line of railroads running from N. York and Philadelphia through the center of Pennsylvania, Ohio, Indiana and Illinois. The course of this line of road is almost due West; the whole route is densely inhabited; the gauge is uniform and nearly the whole line is complete and in operation. From Burlington westward the line will be continued across the State of Iowa to Council Bluffs on the Missouri river. This last link in the great chain of communication from New York to the Western frontier, is now under construction, and when finished, it will complete a straight and unbroken line of railroad over 1,000 miles in length.

The estimated cost of the Eastern division of the Peoria and Oquagua road, when fully equipped for freight and passenger traffic, is \$1,175,000, or about \$23,000 per mile. The whole work is under contract, and will be finished in April next. Twenty miles of it are expected to be in operation on the 20th of the present month. The Western Division, between Peoria and Burlington, is 93 miles in length. Fifty-seven miles of this distance are completed and in operation. The remaining thirty-six miles will be completed next spring, the grading being nearly done, and the iron and other materials on hand.

The country lying on each side of the road, throughout its whole length, is the most fertile and healthful in Illinois. It has been ap-



appropriately designated the "Garden of the West." The nine counties through which the line runs had, in 1850, a population of 88,291, and produced 7,727,866 bushels of corn, 1,169,190 bushels of wheat, 1,065,039 bushels of oats, and is the richest portion of the State for pasture and stock. The statistics of these counties in 1855, in relation to these interests, are as follows: Population 132,317; bushels of corn produced 11,727,000, of wheat 1,950,000, of oats 2,000,000. The surplus products of the portion of Illinois which will seek a market through this channel, are estimated for the present year at 4,000,000 bushels of wheat, 15,000,000 bushels of corn, and hogs and beef cattle in proportion to these and other food crops of the region. Peoria is the second city of Illinois, and Burlington, at the western extremity of the road, concentrates much of the commerce and travel of the prosperous and growing State of Iowa.

The progress of Illinois in population and all the elements of wealth and social advancement is among the most striking examples of the prosperity of the United States. The area of the State is 55,405 square miles, which is nearly all susceptible of cultivation. No state has in proportion so little waste and irreclaimable land. The rapidity of its settlement is shown in the following statement:

|                         |           |
|-------------------------|-----------|
| Population in 1820..... | 55,211    |
| " 1830.....             | 157,445   |
| " 1840.....             | 476,183   |
| " 1850.....             | 851,400   |
| " 1855 (estimated)..... | 1,191,000 |
| " 1860.....             | 1,531,000 |

The central division of the State has been hitherto to some extent neglected by immigrants, owing to the want of direct and easy communication with the older States. Within twenty-five years the established price of wheat has been 37½ cents per bushel; of corn 5 to 6½ cents. The railroad system of the State has effected a most gratifying change, and has given a vast impetus to population, and activity to all the pursuits of life. In September, 1854, there were in running order about one thousand two hundred miles of railroad in Illinois, and the additions which have been and soon will be made, will increase this aggregate to two thousand five hundred miles. The financial credit of Illinois, and the debt paying character of her people, have been firmly established by the provision made within a few years for the extinguishment of the State debt.—*New York Courier.*

#### PROCEEDINGS

*Of the French Broad and Greenville Railroad Convention, held at Greenville, S. C., Aug 29th, 1855.*

This being the day appointed for holding the convention, a number of delegates from North Carolina and elsewhere assembled at the Mansion House. On motion of Gen. Waddy Thompson, Col. T. C. Perrin was called to the chair and John McKay appointed Secretary. The convention, upon being organized, was addressed by Hon. John Baxter, of Henderson, N. C. and Hon. Waddy Thompson, of Greenville S. C., relative to the object for which it was assembled. On motion of Hon. Waddy Thompson, a committee of Five was raised to prepare business for the Convention, and the Chair appointed the following Committee: Gen. Waddy Thompson, Col. John Baxter, Hon. J. B. O'Neill, Col. S. Fair, Maj. B. F. Perry. On motion of Vardry McBee Esq., it was Resolved, that this Convention adjourn to meet at the Court House, this evening, at eight o'clock.

WEDNESDAY EVENING, 8 o'clock.

According to adjournment, the convention re-assembled at the Court House at 8 o'clock, P. M.

Hon. Waddy Thompson, Chairman of the Committee appointed to prepare business for the Convention, submitted the following Report:

The Committee appointed to prepare business for the Convention have instructed me to say that, concurring, as they do, in the report adopted by this body, on the 12th July, at Ashville, they deem it unnecessary to re-state the argument therein contained. Since 1836 no one has ever doubted the importance of the connection of Charleston, Louisville and Cincinnati, by the French Broad Valley. The Committee, believing that the time has now arrived when that connection ought to be made, recommend the adoption of the following resolutions, viz:

1st That this Convention, in common with all the people of South Carolina, desire the construction of the French Broad Railroad, and a connection therewith by the South Carolina Railroad.

2nd That, as soon as the surveys and estimates can be made, the work should be attempted by securing private and State subscriptions.

The resolutions were ably and eloquently advocated by Hon. Waddy Thompson, Hon. John Belton O'Neill, Col. N. W. Woodfin and Hon. John Baxter, and unanimously adopted.

On motion of Gen. W. Thompson, the following resolution was submitted and unanimously adopted, viz:

Resolved, that a committee of — be appointed by the Chairman of this Convention, to ask of the Legislature of this State, at its next session, an appropriation for a Railroad to the line of the State of Tennessee, from such point in this State as may be decided upon after the surveys shall be completed.

In accordance with the foregoing resolution, the Chairman appointed the following committee: Gen. Waddy Thompson, S. Fair, Esq. Maj. B. F. Perry, Col. T. P. Brockman and Perry E. Duncan Esq.

On motion of Judge O'Neill, the following gentlemen were added to the above committee: N. W. Woodfin, Esq., and Hon. John Baxter

On motion of Col. Baxter, the Chairman, Col. T. C. Perrin, was added to the committee.

On motion of P. E. Duncan, Esq., Hon. J. B. O'Neill was also added to the committee.

On motion of Col. N. W. Woodfin, a vote of thanks was tendered to the Chairman and secretary.

After some remarks by the President upon the objects of the Convention, the meeting was adjourned *sine die*.

T. C. PERRIN, Chm'n

JOHN MCKAY, Sec'y.

**GALVESTON AND RED RIVER RAILROAD.**—We learn from private letters received in this place, that \$60,000 in stock of this enterprise have been subscribed in New York and Boston; also, that Mr. Welles was to make another shipment of 1000 tons of iron, together with rolling stock, cars, etc., by the 10th inst. A cargo of the previous shipment was landed at our wharf on Monday last. There are now between 250 and 300 hands at work on the road between here and Cypress. Everything promises well for railroad communication with the interior by January. To do this, the Company needs cash, and we trust those who own stock will meet their instalments promptly, and that those interested (and who is not?) who have not already subscribed, will do so at an early day.—*Houston Tel.*, September 20.

Venezuela is waking up to the necessity of railroads. A company has been formed to construct a railroad from the Port of Cabello to San Felipe, the capital of one of the provinces. The line will be fifty-four miles in length, and is to cost \$1,400,000. The land is to be given for the purposes of the road by the State. The government also furnishes the timber required, and admits free of duty all imported articles that will be wanted. The Company will have a monopoly of an active local trade.

## Miscellaneous and Mechanical.

### THE NEW METAL, "ALUMINUM."

Aluminum is not strictly a new metal, although it has hitherto been obtained in such small quantities, as to be of no practical benefit in the arts. Its appearance and properties are generally only known in the laboratory. It has been prepared by the action of sodium or potassium on the chloride of aluminum. There are, therefore, two substances to obtain at the lowest possible price, in order to reduce the cost of the pure metal, viz: chloride of aluminum and sodium. The new discoveries noticed in the following extract, in the preparation of these two substances, reduce the cost and labor of preparing aluminum to such a point, that it is quite probable that aluminum may yet be employed for useful purposes.

"M. Sainte-Claire Deville, in presenting to the Academy of Sciences some specimens of aluminum prepared at the expense of the Emperor of the French, gives the following summary of the mode of preparation of this metal. The principal materials employed in the industrial production of aluminum are chloride of aluminum and sodium.

The chloride of aluminum is obtained by the re-action of chlorine upon a mixture of alumina and coal-tar, previously calcined. The operation is effected in a gas retort with remarkable facility and completeness. The action of the chlorine is complete upon a stratum of the mixture of from one to two decimetres in thickness, the whole of the gas being absorbed. The condensation of the chloride of aluminum is effected in a chamber lined with glazed brick-work. It is a compact substance, of considerable density, and composed of sulphur-yellow crystals. This chloride contains very little iron, and it is entirely purified during its treatment for aluminum, by passing its vapor over iron points heated to about 700° Fah. The sesqui-chloride of iron, which is as volatile as the chloride of aluminum, is converted into proto-chloride by contact with the iron, and becomes comparatively fixed. The vapor of chloride of aluminum on leaving the apparatus furnishes colorless transparent crystals.

The sodium is now prepared in large and small vessels with remarkable facility. The author has carefully studied the influence of temperature, of the surface exposed to heat, and of the issue of the vapor of sodium from his apparatus, and ascertained that by a suitable arrangement of the proportion between the surface exposed to heat and the section of the tubes which give passage to the sodium, this metal may be produced at a low temperature, perhaps near that of the point of fusion of silver. The sodium is already prepared at a lower temperature than that employed in the manufacture of zinc. He is now engaged in the production of sodium by a continuous process.

The re-action of the chloride of aluminum upon the sodium is effected in metallic tubes, of which the form and arrangement are not yet sufficiently adapted for industrial purposes.



The author, however, hopes soon to get over these difficulties by experiments, which are already planned.

At the same meeting, Mr. Dumas exhibited some large and fine masses of chloride of aluminum, metallic sodium, and aluminum in bars, prepared by M. Sainte-Claire Deville. The manufacture of chloride of aluminum has already been carried to quantities of 200 to 300 kilograms, so that its capability of being effected industrially is no longer a matter of doubt. Mr. Deville's process furnishes sodium with surprising facility; and as both the chloride of aluminum and sodium are pure, the aluminum furnished by them is equally so.

The materials employed in the production of one kilogram of aluminum—ammonia, allum, chlorine, charcoal, carbonate of soda and chalk—all very cheap; and it would not appear surprising that the whole should already be reduced to thirty-two frs. at the outside, if at the commencement of these researches the price of sodium had not been 100 frs. the kilogram, which alone can render the cost of the aluminum 3000 frs.

Thus these investigations have not only shown the possibility of extracting aluminum on a large scale by manufacturing processes, but will also furnish science with a very important re-agent, sodium, at a very moderate price. The numerous trials which have been made, prove that its extraction is as easy as that of zinc; that it may be exposed to the air when fused, without taking fire; and, lastly, that it will flow from the apparatus in which it is made.

It will be also observed that this mode of preparation of aluminum opens a new course in Metallurgy. Hitherto metals have been always obtained by the reduction of their oxides with charcoal, but the extraction of aluminum on the large scale, shows that metals may be obtained from their chlorides. With some metals this process is indispensable, with others it may be preferable to the old methods.

Mr. Dumas mentions that aluminum, is exceedingly sonorous, equalling in this respect the bronze employed for bell-metal, a quality which, as he observes, is not known to exist in any other pure metal. He concludes his remarks by pointing to Marseilles as the proper locality in France for the manufacture of aluminum, as all the materials required can be obtained there at the most favorable rates, and large quantities of muriatic acid are actually wasted in that city.

**A SPLENDID GIFT FROM LYONS TO NEW YORK.**—Mr. Ex-Consul Goodrich, presented to the City of New York, a magnificent portrait of Washington, woven in silk, at the silk manufactory of Messrs. Pousson, Philippe & Vilbert, at Lyons, by which firm the novel of art, richly framed, was presented to the city. The work was done in a Jaquard frame at an expense of ten thousand dollars, and it is the first likeness of an American thus wrought. The likeness is taken from Stuart's painting, and is admirable.

#### NEW INCENDIARY SHELL:

A new incendiary shell invented by Prof. Anderson for use in battle or siege operations has recently been tried at Utica, N. Y. A wooden structure had been erected for the purpose in an open field on the Mohawk flats.

The shells are cylinder, about 8 inches long, flat at one end and cone shaped at the other. The bottom of the cylinder is hollow and filled with a chemical preparation of an explosive and combustible nature. The upper part, and top which screws into it is nearly solid. This end therefore is heaviest and in loading is put outward. The shock, when the ball strikes, produces the explosion.

The results of the trial at Utica are said to have been satisfactory.

#### CULTURE OF HEMP IN MISSOURI.—A NEW POWER HEMP BREAK.

The entire hemp crop of this country is still broken and prepared for market by hand labor.

The labor is severe, and the average day's work in favorable weather is about one cwt.

In wet or damp weather hemp cannot be broken by the hand break, and the average during the entire breaking season does not exceed 50 lbs. per hand, each day.

Most of the hemp brought to this market is not only poorly cleaned, but is overrotted by too long exposure to the weather, to facilitate the operation of hand breaking.

The present limit of the hemp crop of Missouri is the manual labor which can be applied to breaking by hand.

A given force of farm laborers can raise and handle at least double the quantity of hemp which they can break by hand in the course of the season usually devoted to this work.

Previous attempts to produce a good power hemp break have been almost without number, but have failed in their object.

The new break in operation at Whitly's brass foundry, on North Main Street, was made in St. Louis. Its working principle is new, and entirely simple and safe. The main feature is a most effective breaking and whipping action, combined in one vibrating member of the machine. The hemp stalks are spread in successive layers of large handfulls upon a feed apron at one end of the machine, and the layers of fibre are delivered at the other end. Hemp stalks, however tangled, can be passed through the machine, but it spreads better and comes through straighter when the stalks are kept straight and even; strands of the shortest hemp are not elongated in passing through the break, thus avoiding an objection when the hand break is used.

An inferior quality of hemp, barely five feet in length, is broken by the machine at a rate exceeding one ton in ten hours. With long good hemp the quantity can be increased to one and a half tons per day. By the testimony of leading manufacturers in St. Louis, hemp is better cleaned by this machine than seven-eighths of the article sent to this market. It most favorably works hemp which is less rotted than is required for hand breaking. The article thus produced, has a stronger fibre, and makes less tow on the heckle. Three workmen are necessary to attend the machine. It is portable and may be driven by a small portable engine, for which the shives of the broken stalks furnish a surplus of fuel, or a horse power may be used of the description employed to drive the large common threshing machines.

A proprietary company is in preliminary formation for the introduction of the new break extensively in Missouri.

By its general adoption the yearly product of hemp will be only limited by the quantity which can be cultivated, gathered and rotted. This will at once double the aggregate production. The importance of such a result is thought to be equal to the promise of any R. R., or other current project.

In verification of the foregoing, S. A. Clemens the inventor, refers to John L. Blaine, J. T. Douglass, Edward Wyman, James E. Yeatman, U. Rasin, and J. H. Alexander, Esqrs., of St. Louis.

The introduction of machinery for manufacturing hempen fabrics in St. Louis is of very recent date. The manufacture of cotton bagging commenced in 1853, and of baling rope in 1854. There are now four establishments in the city which are operated by steam. Two of these make cotton bagging, and all make baling rope and dress hemp for other markets.

We have conversed with either the proprietors or managers of all these establishments, and from the information obtained we conclude that in the aggregate they are capable of consuming and dressing about 11,000 tons of raw hemp per annum. Of this about 2,000 tons is wrought into cotton bagging; and about 4,700 tons into baling rope. There are also six rope walks in the city which consume about 300 tons of raw hemp per annum, which is wrought into baling rope, twine and various other descriptions of cordage.

According to the Harbor Master's books, there was received at St. Louis in 1854, 35,817 coils of rope, which, reduced to raw hemp, would be equal to about 2,000 tons. There was also received at this port during the same period 2795 pieces of bagging, thus it will be seen that the machinery and rope walks in the city of St. Louis, and in the interior of the State, are capable of consuming annually about 7000 tons of raw hemp in the manufacture of baling rope; weighing, after deducting 12 1/2 percent. wastage in manufacturing, 13,720,000 pounds. This, allowing 8 pounds of rope to the bale, is sufficient to bind 1,715,000 bales of cotton, amounting to more than one-half of the crop of the United States. But there is reason to conclude that the capacity of manufacturing rope in the interior is even greater than the foregoing estimate would indicate. For by reference to the statistics of Lexington, we find that there were 3 extensive hemp factories in operation at that place in 1854, two operated by steam and one by horse power. Rope is also manufactured at Glasgow, Liberty, Rocheport, and Miami, and we feel persuaded from the facts which we have been able to collect from these points, that the 35,817 coils of rope, received at St. Louis in 1854 do not fully represent the manufacturing capacity of the interior, and that we should not be far from the truth were we to add 1000 tons to the foregoing estimate. The manufacturing capacity of Missouri will then represent the annual consumption of about 8,000 tons of raw hemp in baling rope, and 2,000 tons in cotton bagging, and about 5,000 tons of heckled or dressed hemp. Leaving about 3,000 to 4,000 tons of raw hemp for exportation. But a large portion of this power has but very recently been put in operation, and hence we are unable to state the results of the current year. We may also observe that these are only estimates of capacity, and not of actual products, which owing to a variety of causes, are rarely if ever equal to the means of producing.

It is obviously the true policy of Missouri to convert into fabrics or dress all the hemp produced in the State, and we rejoice that such a vigorous movement has been made in that direction. For besides giving employment to our people, and retaining the profits of manufacturing at home, it will be the best means which we can at present command of extending the commercial relations between St. Louis and the Southern States.

*Western Journal.*











**THE CAIRO AND FULTON RAILROAD.**—We learn, by the return of Judge Cross and Hon. W. C. Bevens from south-east Missouri, that the Cairo and Fulton railroad, from the mouth of the Ohio to the Texas boundary line, has been put under one management by the joint action of the two companies in Arkansas and Missouri—that an agent to select the lands in Missouri, under the act of Congress making the grant, of 9th February, 1853, has been appointed by the Governor of Missouri—and that the lands are now in process of being selected, simultaneously with those of Arkansas. We hazard the opinion that the lands for this line of road will be speedily selected, and those remaining to the United States brought into market at an early day. Nothing now but injudicious management can prevent the ultimate construction of this road as an entirety. The resources of the two companies will be ample if the quantity of land contemplated to have been granted, or a near approximation to it shall be found within the prescribed limits of the grant.—*True Dem. Sept 11th.*

**LIABILITY OF BANKS IN PAYMENT OF FORGED CHECKS.**—The liability of Banks in paying a forged check upon it has been established by the Courts of both England and the United States. The rule established is to this effect:—If a bank pay a check with a forged signature, it cannot afterwards recover the amount from the endorser or from the party to whom it may have been paid, although the latter may be able to sustain the loss. *The bank is bound to know the signature of its own customers, and cannot recover the amount paid on a forged check unless there be collusion between the parties to the check, or unless the Bank obtain (as it should) whenever there is any doubt as to genuineness of the signatures, a guarantee from the payee.*

A disputed case, the New York Courier says, arose in that city last month. A check on the Sub-Treasury, drawn by a disbursing officer in the West, was presented, with a signature so different from that of the drawer on file, that payment was refused, unless the banker here who received it from his correspondent, would guarantee the signature to be genuine. This the latter refused to do (although the demand was perfectly reasonable) and the check was protested for non-payment. In this case the check turned out to be genuine, but the Sub-Treasury officers pursued the right course under the circumstances—knowing that, if fraudulent and paid by them, the loss would fall upon them individually.—*Balt. American.*

#### CINCINNATI & CHICAGO RAILROAD.

The Indiana *State Sentinel*, in noticing the opening of this Road from Logansport to Kokomo, says:

The Railroad running from Logansport to Kokomo is but just completed. The line is quite straight and the track peculiar for the absence of nearly all necessity of grade. We have never seen a strip of country where it might be said, with so near an approximation to truth, that "to build a railroad all you have to do is to clear away the timber and lay down the iron." When the track is ballasted the road in question will be one of the *first class*. Arriving at Logansport in the vicinity of noon, the Excursionists were received with open arms by the citizens, and escorted in carriages through the principal streets, giving the strangers in the number an opportunity to witness the signs of prosperity and progress which are there apparent at every hand.

Logansport has at this time a population of about five thousand souls. Her situation is one of the most beautiful in the State. With the Wabash and Eel Rivers at her sides, and her high and delightfully undulating ground on which to build, she presents a constant

natural stimulant to those improvements which add as well to the elegance as to the comforts of life. There, are, perhaps, a larger number of splendid private mansions, with beautifully decorated grounds, in Logansport than any other town of a similar population in Indiana. By means of the Cincinnati and Chicago, and Wabash Valley Road, giving her transportation out and in-let, North and South, East and West, she will soon have commercial facilities which will contribute a fresh impetus to her substantial improvements, and give an acceleration to her business greatly exceeding anything before experienced by the denizens of the place.

**NATURAL BRIDGE.**—Among other California curiosities, the Shasta Courier is informed that a natural bridge has been discovered near Watson's Gulch, Trinity County, which is described as being sixty-three paces through and sixteen paces in width; from the bottom of the gulch to the arch, about twenty feet; and the entire height, from the bottom of the gulch to the top of the bridge, about one hundred feet.

On the right hand as you enter the arch from the east side, is an apartment about 14 feet long by 10 feet in width, and 7 feet high, in which there are quite a number of curiosities, in the shape of rude bowls, basins, &c. No digger, either male or female, ever passes here without depositing either stock or stone on the top of some rock near this bridge. About half-way up from the top of the arch to the top of the bridge is another cave or apartment, but which, because of its position, has not as yet been examined. This bridge is composed entirely of limestone. The water flowing underneath it is of a most excellent quality—making the teeth ache because of its excessive coldness.

#### LYONS, MAQUOKETA AND CEDAR RAPIDS RAILROAD.

We call the attention of our readers to the following letter from Lyons. We hope our citizens generally, will at least show that we are determined to meet them half way, by taking stock sufficient to at least grade one half of the distance between Lyons and Maquoketa. But read the letter and let us show Lyons our Yankee town is not yet destitute of enterprise:

LYONS, Iowa, Sept. 11th, 1855.

MESSEURS. EDITORS,—*Dear Sirs:* Our city, in her corporate capacity, has taken seventy thousand dollars, and our citizens by subscriptions have taken fifty thousand—in all one hundred and twenty thousand dollars stock in the Iowa Central Air Line Railroad. The first instalment has been paid, and six miles of the road let. About a week since the work commenced vigorously at this end. It is the decided intention of the contractor and all concerned at this end of the road, that ten miles shall be graded this fall, and perhaps sixteen—one half. Without gassing, I pledge my honor as a gentleman, that if the citizens of your far famed Yankee town shall do their duty to this noble enterprise, the brown horse will snort, puff and whistle, within twelve or fifteen months, at your door, as he shall come up with 50 or 100 passengers more than the hotels can accommodate, while Maquoketa remains a terminus.

We expect your citizens will meet us half way, knowing them to be energetic, and being of the opinion that they believe with us, that "God helps them that help themselves."—*Maquoketa Sentinel.*

**BURLINGTON R. R.**—The *Hawkeye* says that Mr. Hendrie, one of the contractors, has returned from the East, after having purchased the iron for our road hence to Mt. Pleasant and the necessary fastenings. The first will probably arrive in some two or three weeks, having been shipped about ten days since. He also purchased two locomotives which will be run through by railroad by the time they are needed. Hands are now engaged in grading the temporary track to the point where the iron is unloaded. He is confident that they will be able to lay down 20 miles before cold weather.

**JOLIET AND ELGIN R. R.**—A meeting of the Stockholders in the above road was held in the Court House, at Naperville, on Monday last, for organization. A local subscription amounting to \$65,000 was reported, and \$75,000 more was reported as pledged at Joliet, though not formally subscribed. The Company was organized by the election of the following Board of Directors:

Uri Osgood, S. W. Bowen, Will County.  
M. Brayman, H. M. Vallette, Thomas Martin, Dupage County.

A meeting of the Directors was subsequently held, at which the following officers of the Board were elected:

President Uri Osgood.  
Secretary, H. M. Valette.  
Treasurer, Aylmer Keith.

The Board adjourned to meet on Saturday next in Joliet.—*Chicago Press, Oct. 6.*

#### Railroad Printing.

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

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The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via, Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. WALKER & BERRY, Quebec & Kingston, Canada. BERRY & WALKER, Liverpool, England. Kingston, C. W., Sept. 15. 1855.

MIDDLETON, WALLACE & CO.,  
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and their Cargos,

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at current rates. **L. A. OSTROM,**  
No. 6 West Third Street, Cincinnati.

**Railroad Iron,**

**1,500 TONS,** now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.,** 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

**NOTICE TO CONTRACTORS.**

**PROPOSALS** will be received at the office of the Henderson and Nashville Railroad company in Madisonville, Kentucky, until the first Monday in October next, for the grubbing, clearing, grading and masonry of said road, or any part thereof. The work will be divided into convenient sections to suit bidders, of not less than half a mile. Proposals will be opened at the city of Henderson, on the said first Monday in October, at which time and place the Board of Directors will meet for that purpose.

E. G. SEBREE, Prest.  
CHAS. SEYMOUR, Chief Engineer.  
August, 18th, 1855. 5w



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,  
North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
CINCINNATI.

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

*Bank Notes, Drafts, Bills of Exchange,*  
**RAILROAD BONDS, & CERTIFICATES**  
Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE**  
**ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence with that of Bank Notes—

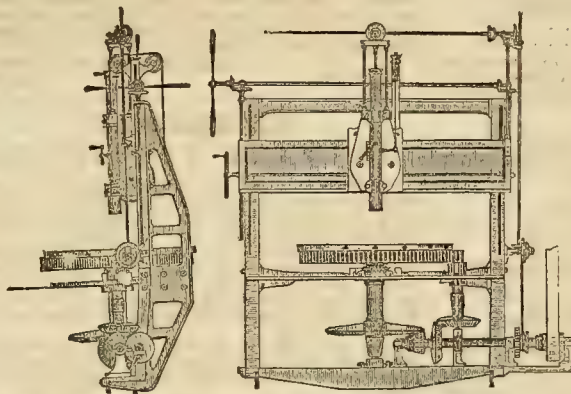
**RAIL ROAD, STATE, AND COUNTY BONDS,**  
BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order  
of a superior quality.

The above office is under the supervision of  
**GEORGE T. JONES,**  
South-East corner of Main and Fourth Sts., Cin.

**NILES' WORKS.****FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well  
known class of

**ENGINEERS' & MACHINISTS' TOOLS,**

SHAFTING, GEARING,

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad  
and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Facto-  
ries, etc., etc.



**MATHEMATICAL INSTRUMENTS.**

**T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.  
No. 1, 2d STORY APOLLO BUILDING,  
CINCINNATI, O.,

**MANUFACTURERS OF**  
**Surveyors' & Engineers'**  
**Instruments, Theodo-**  
**lites, Transits,**  
**Levels, &c.,**

REPAIRING AND ADJUSTING INSTRU-  
MENTS DONE TO ORDER.

Orders promptly attended to.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY.

**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines,  
28 tons weight; 10 wheels, 6 drivers and truck.  
Two of the Engines now ready for delivery, and four  
in the course of three months. Our Coal Burners are  
used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage)  
Pennsylvania Central; Manassas Gap & Orange & Al-  
exandria, Georges Creek Co.'s road, Central Ohio, and  
Ohio & Penna.; and for their durability and economy  
of repairs, and economy of fuel, we refer to the officers  
of the above roads.

Orders for freight or passenger engines deliverable on  
or after the first of December, solicited.

Address, **THATCHER PERKINS,**  
President.  
Also, for sale, two Twenty Horse Power Stationary  
Engines.  
Aug. 9 4t

**THE SCHENCK****MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**

No. 163 GREENWICH STREET,  
NEW-YORK,

**KEEPS** constantly for sale, Tools suitable for Rail-  
road Repair Shops, and having connection with  
some of the largest Establishments at the East, is pre-  
pared to furnish Tools of any description. Also the  
principal Manufacturer of the justly celebrated Wood-  
worth's Patent Planing Machines in forty different va-  
rieties. Slide and Hand Lathes, Iron Planing Machines,  
Sash and Tenoning Machines, Mortising Machines, Up-  
right Drills, Chucks, Steam Engines, and Boilers, Pumps  
of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented  
and copper riveted. Warranted superior to any made.  
Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR.

Aug. 9 1y

**D. D. MILLER,**

Manufacturer of  
**LOCOMOTIVE, RAILROAD AND HAND**  
**LANTERNS,**  
190 Water Street, New York.



## RAILROAD MAP OF THE UNITED STATES.

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sillers, Esq., of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

|                                                          |        |
|----------------------------------------------------------|--------|
| Plain Lithograph.....                                    | \$0.50 |
| Colored Boundaries.....                                  | 0.75   |
| Backed with muslin and varnished ready for moulding..... | 1.50   |
| Mounted.....                                             | 2.00   |

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers.

Railroad Companies wishing a large number to circulate with reports, or to supply their various offices, will be allowed a corresponding discount.

Orders addressed to

**T. WRIGHTSON & CO.,**  
Publishers R. R. Record,  
167 Walnut St.,  
Cincinnati, Ohio.

### Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

## GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION & FORCE PUMP

AND

## Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-ly

## IRON BOILER FLUES.

PASCAL IRON WORKS.

## MORRIS, TASKER & MORRIS,

Manufacturers of

## LAP-WELDED BOILER FLUES,

1½ to 7 inches outside diameter, cut to definite lengths, as required.

## WROUGHT IRON WELDED TUBES,

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.

## TO CONTRACTORS.

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Granger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly CASH.

Aug. 2, 1855.

R. L. OWEN, Chief Engineer.

aug2 12w

## THE KENTUCKY MILITARY INSTITUTE.

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,

President of the Board.

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-tf.

## Terre Haute & Richmond R. R.



### Summer Arrangement.

#### TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 24 hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

#### TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

## Cincinnati, Hamilton, & Dayton R. R.



### SUMMER ARRANGEMENT.

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

#### FIRST TRAIN.

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

#### SECOND TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

#### THIRD TRAIN.

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

#### FOURTH TRAIN.

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

#### FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

#### SIXTH TRAIN.

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

#### SEVENTH TRAIN.

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M. & 6.30 P. M. LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the Office.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

## CINCINNATI, HAMILTON & DAYTON, AND EATON & HAMILTON R. R.

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

D. M. MORROW, Superintendent.

feb. 8-ly



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

**TO LOUISVILLE  
IN SIX HOURS.**

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M., and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co.

S. S. POST,  
Chief Engineer and Superintendent.

Omni-buses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-buses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

**STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES),  
is prepared to execute in the best manner all kinds of  
STEREOTYPING,

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of  
Card and Job Type, Cuts, Rules, &c., &c.  
from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.  
C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

**1855. New Arrangement, 1855  
COMMENCING MONDAY, JULY 16.****LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.**

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M.,  
10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both  
to and from Cincinnati and the East,  
LAID WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.

Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.  
"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route, CINCINNATI TO CLEVELAND in 8½ hours.  
CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to  
To Columbus in.....3¼ hours.

To Cleveland in.....8½ "

To Dunkirk in.....14½ "

To Buffalo in.....16 "

To Albany in.....26 "

To New York in.....30½ "

To Boston in.....35 "

To Crestline in.....6 "

To Pittsburgh in.....14 "

To Philadelphia in.....30½ "

To Wheeling in.....10 "

To Baltimore in.....26½ "

To Washington in.....29 "

To Steubenville in.....12 "

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

THROUGH TICKETS.

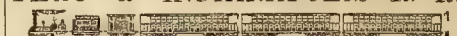
And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and  
Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.40 P. M.

Passengers for Logansport, Wabash, Rochester, and Huntington, connect with Stages at Peru; also connect with Packets for all points on the Canal North or South.

Passenger Train leaves Peru daily, Sundays excepted, at 5.30 A. M., for Indianapolis, connecting with Trains for the South and East.

E. G. BARNEY, Superintendent,  
Indianapolis, March 22, 1855.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Fairmouth, Cullerville, Boyd's, Berry's, Robinson's, Garnett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

RATES OF FARE.

Covington to Lexington.....\$3 00  
Covington to Paris.....2 40  
Covington to Cynthia.....2 00

FOR THROUGH TICKETS

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,  
Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices

oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

VIA LAWRENCEBURG,

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at

6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and La Fayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,  
Agent.

Cincinnati, June 12, 1855.

**W. G. ATKINSON,**

Civil Engineer, Surveyor & Draftsman.

CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for

Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists.

Mines explored, new Works laid off, and Geological plans prepared.

matl-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNYS & PECK,  
Louisville, Ky.

jo. 8-1f

**Norris' Locomotive Works,****PHILADELPHIA.**

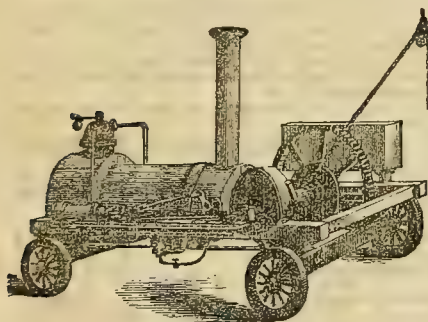
ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

Jy. 27.

RICHARD NORRIS &amp; SON.

**A. L. ARCHAMBAULT'S**  
**PORTABLE STEAM****HOISTING & PUMPING**  
**ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Guages.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

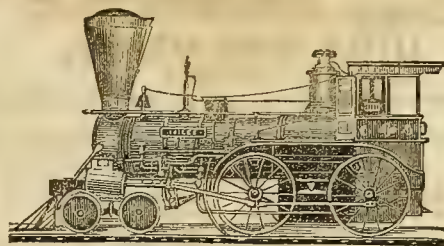
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DURAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for Iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, Jr.,**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.



HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box Wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th. 1853. mar1-f

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames'

Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car,

Conductor's, Signal, Switch, Stoker and other

Lanterns. Drawbridge and cross Road

signal Lights; Gun Packing and

Hose, assorted Car Trimmings, and

Enamelled head and seat

Linings, Plated and

White Metal Letters.

—ALSO—

Machinists' Tools,

particularly adapted to

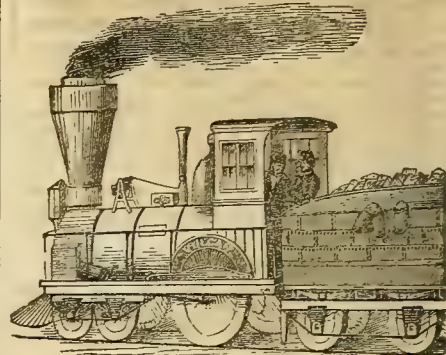
Railroad Work, Mill Work,

Shafting and Shop outfits, Punch-

ing and Shearing Machines, for Boiler

Work; Planers, Lathes, Drills, Portable

Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. Jy13.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap:20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. &amp; R. Wason, Springfield, Massachusetts.

**Railroad Car Findings.****BRIDGES & BROTHER,**

64 Courtland Street, New York.

**Wheels & Axles, Jaws, Boxes, and Castings Fit Wrought Nuts, Bolts, and Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
**Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport &amp; Bridges, Car Manufacturers,

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

+oc6

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

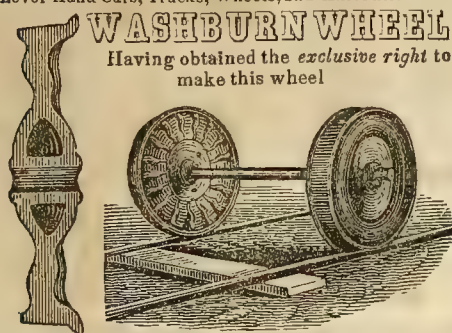
Dayton, Jan. 24th. 1853.

Jan 25-t



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

**Railway Car Manufacturers,**  
**MASSILON, OHIO.**

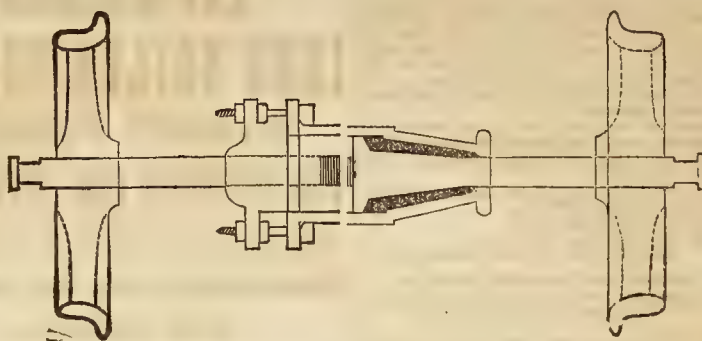
THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16/87 JOSEPH DAVENPORT.

### S. C. THOMSON & CO., MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n. 12} **NEWARK, N. J.**

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels. That is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

by 104

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**McDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

**NORRIS BROTHERS, Locomotive Builders, Philad.**

**A. C. GRAY, Prest. New Castle Manuf. Co.**

**U. WELLS, R. R. Car Manuf. Petersburg, Va.**

**I. R. TRIMBLE, Supt. Philad. R.R. Co.**

May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.**

**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**

**THOMAS DOUGHERTY, Master Mach. do.**

**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.**

## DURYEE & FORSYTH'S PATENT PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.  
dec27 **HEWSON & HOLMES,**  
83 and 85 Walnut Street.

## THOS. M. CASH, PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,  
Wm. D. Lewis, Esq., Pres't Catawissa R. R. Co. "  
Charles H. Fisher, Esq., "  
Jno. Caldwell, Esq., Pres't S. C. R. R. Co. Charleston, S. C.  
Pinckney Huger, Esq., Pres't. N. E. R. R. Co.  
Oct. 13-74.



**Parry's Anti-Friction Box,**

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to  
JOHN RICE & CO., Patentees,  
90 South Fourth street, Philadelphia.

**READ THE FOLLOWING CERTIFICATES.**

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

**MR. PARRY—**

DEAR SIR—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.  
WILLIAM B. FOSTER, JR.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

**MR. PARRY—**

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,  
H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH P. A. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.  
EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equilibrium, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

**28**  
**PLATT STREET,**  
**LAP-WELDED**  
**IRON BOILER TUBES,**  
**Prosser's Patents.**  
**TUBE EXPANDERS, FOUR-CUTTER AND**  
**CHAMBERING DRILLS,**  
**Countersinks, Cutting Bars and Pall-**  
**Lever Wrenches,**

WHALEBONE AND STEEL WIRE BRUSHES.

**Artesian Well Tubes**  
**Screwed Flush inside & outside.**

**FREE-JOINT TUBES**  
**For Core Bars, Awn-**  
**ings, Railings,**  
**Leaders, &c., &c.**  
**PATENTED**

**HOLLOW SLAB WATER TUYERES,**  
**For Smith's use, and**

**WATER BACKS,**

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

**HOT WATER APPARATUS**

For warming air, boiling water and heating ovens.

**ANNULAR**  
**SURFACE CONDENSERS,**

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

**KRUPP'S**  
**CELEBRATED CAST STEEL,**

For Plates, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

**CAST-STEEL CANNON.**

of any calibre.

**PATENTED CAST-STEEL TIRES,**

For Railway Wheels. Railway Axles and Springs,  
**SHAFTS,**

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

**FRIED. KRUPP,**

Essen Rhenish Prussia.

Represented solely in the United States by

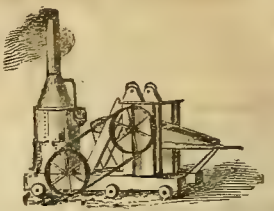
**THOMAS PROSSER & SON,**

**28**

PLATT STREET, New York!

**"GARDNER'S ROCK DRILL."**

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

nov17+

G. ARTHUR GARDNER,  
Trinity Building, N. York.

**Important to Railroad Companies, etc.**



**Leavitt's Railroad Frog-Points,**  
**Cast Steel Tools, etc.**

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

**RAILROAD FROG-POINTS,**  
**Lathe Mandrels, Gauges**

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

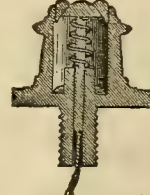
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

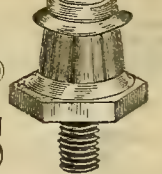
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# Railroad Record.

E. D. MANSFIELD, - - - Editor.

W. WRIGHTSON, { Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING,.....OCTOBER 18, 1855.

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## Railroad Record

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### RAILROAD MAP.

By a miscalculation on the part of the engraver, this map is not yet quite ready. Hence, our friends who have written on the subject, will be disappointed in not having them forwarded as soon as they were justly entitled to expect. Please remain quiet gentlemen, we will attend to your orders as soon as they can be procured from the engraver's hands. Probably about the first of the month.

VOL. III.—No. 34.

### RAILROAD TO THE PACIFIC—TEXAS WESTERN R. R. COMPANY.

In the *Record* of May 10, 1855, we reviewed the Government Reports on the subject of the Pacific Railroad. Considering (as we still do) that the Government had substantially abandoned the construction of a railroad to the Pacific, and that the work, great as it is, would be constructed by private enterprise, aided by the states, we judge the Texas route as the most eligible. If the central and north-western states shall not be satisfied hereafter with that route, they must charge themselves with the fault; for it has been in the power of their representatives to come to the adoption of the Central Pacific Road. But, in fact, that is no cause for local jealousy. Take Cincinnati, for example, as a central point, and, by means of the "Ohio and Mississippi," the "Illinois Central," and the "Cairo and Fulton" Roads, the central West can communicate with San Francisco (the Texas road being made) as speedily and cheaply as they can by any road north of it. Local objections, then, should have no weight. On the other hand, the Texas route has one immense advantage for a railroad, viz.: the mildness and uniformity of its climate. On the line of the 32° of latitude, the thermometer seldom rises above 75° or falls below 50°. Hence ice and snow make no objections to this route, and external heat will seldom oppress the traveller.

In our review of this route, we made the following figures:

|                                        |              |
|----------------------------------------|--------------|
| Distance from Fulton to San Pedro..... | 1,618 miles. |
| Arable Land.....                       | 784 "        |
| Sterile ".....                         | 834 "        |
| Cost.....                              | \$67,980,000 |
| Value of lands granted by Texas.....   | 45,628,000   |
| Capital required.....                  | 22,352,000   |

In other words, a company of enterprising capitalists can construct a railway over the North American Continent, from the Mississippi to the Pacific, for less than *twelve thousand dollars per mile* (1) of actual money. Can it for one moment be doubted—the work being finished—that such an enterprise is one of the greatest speculations the world has ever offered? Let it be remembered, that in the estimate placed on Texas lands, they are put at less than *one-half* what western lands, held by railway companies, are now producing; while travellers represent them as in the most tempting of the earth, for soil and climate.

Since we wrote the article referred to, we have read and published (in the *extra Record*) the able and satisfactory Report of Col. Gray on this subject. It will be seen, by those who have seen it, that he more than confirms the representations made by the Government Surveyors and ourselves. We have only space here to condense some of the points he has made.

1. *Soil and Climate.*—The most favorable account is given of this in Gray's Report. It must be remembered that he and his party *actually traversed and viewed* every foot of ground through which the Texas Pacific Road will

pass. From this, it appears that the 780 miles from the eastern boundary of Texas to El Paso, is a fine, fertile country. In New Mexico, (578 miles) the land is certainly not so good for agricultural purposes; but rather barren. There are, however, valleys and areas of good land, which taken in connection with great mineral resources of various kinds, will make that by no means an undesirable country. In California, (260 miles) the land is various. The mountain ranges towards the Pacific, reduce the arable land to a small quantity; but here again the mineral district will amply compensate for the want of due advantages.

2. *Value of Texas Lands, and cost of Construction to the Rio Grande.*—Col. Gray, taking *minimum* prices, has arrived at the conclusion that the value of lands granted by Texas to this road is \$44,789,760; which, the reader will observe, is but little less than we estimated them at. But, it will also be observed, that Colonel Gray estimates the entire cost of the road through Texas at about \$20,000,000. It follows, then, that the Texas Western Railroad Company can actually construct a railroad from Louisiana to El Paso, (781 miles) with the lands given by Texas, and *have twenty-four millions of dollars in land remaining!* If the company chose then to stop at El Paso, they will have made the greatest speculation this country has afforded! But that is not all. They will, by road to El Paso alone, have by far the best route to California, and one with which the ship route cannot compete!

3. But supposing the whole road to be made, from the Eastern boundary of Texas, near Shreveport, Louisiana, to San Pedro, then the following is the estimated cost and means, which we republish, that the reader may see the whole at a glance.

### RECAPITULATION.

*Cost of Road and Equipment (through State of Texas (783 miles) from Navigable Waters of the Mississippi, near Shreveport, Louisiana, to Rio Grande, near El Paso.*

|                                                                                                                                                                                  |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Graduation and Masonry.....                                                                                                                                                      | \$4,500,400 |
| Bridging.....                                                                                                                                                                    | 166,000     |
| Superstructure, including Iron.....                                                                                                                                              | 9,411,966   |
| Equipment: Passenger and freight stations, buildings and fixtures, including depots, machine shops and machinery; Locomotives; passenger, freight and baggage cars, &c., &c..... | 3,550,000   |
| Engineering and contingencies.....                                                                                                                                               | \$2,000,000 |

Total cost of Road through Texas.....\$19,688,366

Average cost per mile, ..... 25,144

*Cost of Road and Equipments through Territory of New Mexico (578 miles) from Frontera, on the Rio Grande, to Navigable Waters of the Pacific, at Junction of the Gila and Colorado.*

|                                                                                                                                                                                                           |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Graduation and Masonry.....                                                                                                                                                                               | \$3,217,500 |
| Bridging.....                                                                                                                                                                                             | 56,000      |
| Superstructure, including Iron.....                                                                                                                                                                       | 8,089,688   |
| Equipment: Passenger and freight stations, buildings and fixtures, including depots, water and fuel stations, machine shops and machinery, locomotives, passenger, freight and baggage cars, &c., &c..... | 2,837,500   |
| Engineering and contingencies.....                                                                                                                                                                        | \$2,000,000 |

Total cost of Road through New Mexico.....\$16,200,688

Average cost per mile, ..... \$28,028



*Cost of Road and Equipment through State of California (260 miles,) from the Navigable Waters of the Colorado to the Harbor of San Diego or San Pedro.*

|                                                                                                                                                                                                |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Graduation and Masonry,.....                                                                                                                                                                   | \$1,640,000 |
| Bridging,.....                                                                                                                                                                                 | 250,000     |
| Superstructure, including iron,...                                                                                                                                                             | 4,124,120   |
| Equipment: Passenger and freight stations, buildings and fixtures, including depots, water and fuel stations, machine shops and machinery, passenger, freight and baggage cars, &c., &c.,..... | 1,567,500   |
| Engineering and contingencies,...                                                                                                                                                              | \$1,000,000 |

Total cost of Road through California,.....\$8,581,620

Average cost per mile,..... \$33,000

*Total Cost of Railway, (1621 miles) from navigable waters of the Mississippi, Eastern Boundary of Texas, near Shreveport, to the Harbors of the Pacific,.....\$44,470,674.*

*Value of the Lands donated under Texas Western R. R. Charter, February 16th, 1852 (8 sections to the mile, and estimating only 8 under Act of 30th January, 1854—10,240 acres for every mile of road built) at \$5 and \$3 per acre, as per estimate in the first Division.....\$44,789,760.*

Supposing, as we fairly may, that the Company sells but one-half its lands for immediate construction, at \$20,000,000, and reserves the other half till the road is completed to El Paso, then the remaining will be worth double, or \$40,000,000. Then it is within the limits of possibility, and even probability, that the great Pacific Railroad may be completed for the lands granted by Texas, and leave the company with the entire road and several millions of dollars, free of cost. To accomplish this, however, would require a great concentration of means, great prudence and energy in the prosecution of the work, and an untiring and indomitable perseverance. These qualities are hard to unite. But such things have been done, and why not in this enterprise, which offers such an immense and glittering premium to talent and capital.

#### NEATNESS IN THE CARS.

How much it adds to the comfort of the traveler to find himself in a neat, clean car, well swept and well dusted. Railroad traveling, at the best, is dusty business; and those who do much of it, stand a fair chance of eating their quota of dust before others get fairly begun. But when added to the legitimate annoyance of a single train, there is the accumulated dust and dirt of a week, traveling in such a conveyance, becomes almost past endurance. The passenger feels as though every time he touched the seat, or the side, or the hand rail, that he was accumulating a store of dirt that would have to be scrubbed off. The feeling of constraint and discomfort thus occasioned, is anything but pleasant.

How agreeable in contrast with this, to take a seat in a well cleaned car and feel perfectly at ease, to be at liberty to move around in the seat, or lean back the head without fear of rubbing in the dust beyond what is really necessary.

Besides, cars will look comfortable and fit for use, twice as long if properly and regularly cleaned, as they will if neglected. These ideas were suggested by a comfortable ride in a neat car on the Cleveland, Columbus and Cincinnati Railroad, where I am now writing (Monday, A. M.) This road has always enjoyed the reputation of being a very dusty one; and yet, by dint of a little trouble, its cars are kept looking neat and fresh. Other roads, passing through a more favorable soil, could, in the same manner, keep their cars neat, if they would take the trouble.

We have traveled occasionally on roads where it was customary to keep one or two cars in good order for the ladies and families, while the balance of the train was left in a dirty condition. Now, while we like to see every due attention paid to the comfort of females in traveling, it strikes us that gentlemen who travel have some claims for comfort when it can be so easily secured to them.

#### THE SECRET OF SUCCESS IN RAILROADING.

The great secret of success in railroading as in every other employment of life, is not in splendid equipment or ample appliances. These, when they can be had, are very desirable aids, but they are not the principle elements of success. There is something beyond them and above them; there is something which can control even untoward circumstances, and rising above the want of means, can create for itself the elements of success. How often do we see in business life the man of fair prospects and abundant means outstripped by one who began with nothing but an iron will and a determination to be successful. The secret was, the one realized the value of moments, while the other thought he could afford to throw them away. And so it is in railroading, promptitude, exact promptitude is, and will forever be, the great secret of success. One moment lost and wasted can never be regained. Promptness, with a partial equipment, is infinitely superior to procrastination with a surplus of rolling stock, machinery and men. Have the depots promptly cleared, make every man feel that when there is work to do every moment counts, give every train sufficient time to make its station and expect it to do so unfailingly, never undertake to do more than you may reasonably expect to do in a given time, and never fail to do what you undertake, and your success in managing a railroad is certain.

One of the great evils that lies at the root of many failures is the undertaking more than one can reasonably expect to accomplish well. This induces a habit of half doing everything, and the consequence is that more time is spent doing over what should have been done at first than would have doubly finished it well in the beginning. The putting off till to-morrow what should have been done at once is the great evil. Work accumulates, time is lost, accidents happen, everything is done in confusion, because it is done in a hurry, and the road is

unprofitable, because its officers lack promptness and energy. Again, we repeat promptness, exact promptness, is the great secret of success.

#### EVANSVILLE, INDIANAPOLIS AND CLEVELAND STRAIGHT LINE RAILROAD.

We learn from the Evansville Journal of October 11, that the tenth estimate on construction account has just been paid in that city. The Journal says: "Every estimate has been promptly met, which is probably the best evidence of the stability of those at the head of this enterprise, and of the excellent manner in which the work is being conducted.

"Mr. Carpenter will start forthwith up the line of the road to see the people of the counties beyond the crossing of the Ohio & Mississippi Railroad. He will make the lettings on the road beyond this crossing just so soon as the people in these counties subscribe the proper amount of stock. Great liberality and a most excellent spirit have been thus far shown along the route of the road, with but the exception of a few persons. We hope the people beyond the Ohio & Mississippi Railroad will exhibit an equally correct appreciation of the value of the road, and of their own interests in connection therewith. The great enterprise is progressing steadily, and under the circumstances, rapidly. There is not an acre of land along its route, which will not be almost doubled in value by this road. Therefore all the encouragement which those owning this land can give the work, will redound to their own emolument."

#### PENNSYLVANIA PUBLIC WORKS AGAIN.—

We learn from an advertisement in the Pennsylvania *Inquirer*, that the Main Line of Public Works in Pennsylvania, is again offered for sale or lease. Sealed proposals to be received until December 24.

**HEMPFIELD RAILROAD.**—The work on the Depot for this road in Wheeling, has been begun. The grading along the street leading to the depot, is nearly finished, and all the track between Wheeling and West Alexandria is graded and ballasted ready for the rails.

**TENNESSEE AND ALABAMA RAILROAD.**—We learn from the Superintendent of this Road, that it is now open twenty-seven miles. At the date of the Annual Report given in our last issue, the road was running but eighteen miles.

This road, in company with many others of the prudently managed roads under construction, proceeded slowly and spent as little as possible during the late monetary pressure, but are now progressing again more rapidly.

☛ A daily line of stages is to be run from Davenport to Lyons, in Iowa.



Col. Landers, a distinguished Engineer, was expected to address the citizens of Logansport on the evening of October 10, on the subject of railroads in general, and especially, the project of a Pacific Railroad.

## Railroads.

### CHICAGO, ST. PAUL & FOND DU LAC R. R.

The Chicago, St. Paul and Fond du Lac Railroad Company was formed by the consolidation of the Illinois & Wisconsin, and the Rock River Valley Union R. R. This Co. will have, therefore, one entire line from Chicago through Janesville, Watertown, and Fond du Lac, to the heart of Wisconsin. Their charter authorizes them to extend their line of road North-west from Madison to the state line near St. Paul, in Minnesota, and from Fond du Lac North through the lumber and mining region to Lake Superior. The Company design at present only to build the Road from Chicago to Janesville, and thence up the Valley of the Rock river, *via* Watertown to Fond du Lac, a distance of 178 miles, is all that is contemplated for the present. The estimated cost of the entire line is \$6,000,000.

"The first division of the road from Chicago to Woodstock, 52 miles, is in operation and equipped for business.

"The second division, from Woodstock to Janesville, 40 miles, is three-fourths graded, and a large force is now at work to complete it. The amount of money required to finish up this division, and to complete the ballasting and fencing of the first and second divisions, as now contracted, is, inclusive of iron and superstructure, complete, \$584,000.

"The fourth division, from La Crosse Junction to Fond du Lac, 80 miles, is so far advanced as to be easily finished. Eighteen miles, from Fond du Lac south to Chester, are completed and in operation. The ties are provided for the twelve other miles. The entire grading and bridging is done. It is estimated that the whole division can be completed for \$120,000; but if the cost of additional rolling stock upon the 1st, 2d, and 4th divisions be added, with the amounts of bonds and stock yet to be issued to the contractors upon the 1st and 2d divisions, the total sum required will be \$216,000.

"The third division of the line extends from Janesville *via* Watertown, to the crossing of the Milwaukee and La Crosse Railroad, fifty-six miles. Less work has been done on this, than on either of the other divisions. It is estimated that it will cost \$1,000,000 to complete and equip this division.

"The above named sums, with \$405,000 added for contingencies, make the aggregate of \$2,375,000. If to this be added \$3,625,000, the sum already expended, we have

the total of \$6,000,000 as the entire cost of the road."

#### SUMMARY.

Of this line there are already completed and in operation, from Chicago to Woodstock... 52 miles.  
From Fond du Lac south to Chester..... 18 "

Total of completed road..... 70 "  
There are also fully graded on the remainder of this line, equal to..... 50 "  
Number of miles to be graded..... 58 "

Total..... 178 "

The report sums up the resources of the Company as follows:

"In order to provide ample means to complete and equip the road from Chicago to Janesville and Fond du Lac, and free it from incumbrance, by retiring the bonds of an existing mortgage for \$1,500,000 made by the Illinois and Wisconsin Railroad Company, previous to consolidation, on the 70 miles of said road in Illinois, (\$950,000 of which bonds have been heretofore sold, and \$550,000 of which are temporarily pledged for existing liabilities,) it is proposed to issue \$3,000,000 of seven per cent. thirty year convertible bonds of this company; to secure which a mortgage has been duly executed to James Winslow, of the firm of Winslow, Lanier & Co., bankers of the City of New York, in trust, upon the entire line of said road, from Chicago to Fond du Lac, 178 miles, and upon the furniture and equipments thereof, acquired and to be acquired. Said bonds are also further secured by a sinking fund of one and a quarter per cent. per annum, sufficient, with its estimated accumulations, to redeem all said bonds at or before maturity. This mortgage of \$3,000,000 is equal only to one-half the cost of the road.

"Fifteen hundred bonds, of \$1,000 each of this proposed issue, are to be delivered in exchange for the said Illinois and Wisconsin bonds, thereby making the mortgage executed to secure the \$3,000,000 of bonds a first mortgage on the entire line of said road.

"More than three-fourths of the holders of said Illinois and Wisconsin bonds have already stipulated in writing to make such exchange, and the remainder will, upon being advised, find it to their interest to do so, in the better security offered in the new bonds about to be issued.

"There will remain of said \$3,000,000 of bonds proposed to be issued after retiring said Illinois and Wisconsin bonds, \$2,050,000 bonds to be sold and disposed of for the general purposes of the Company in the construction of their road.

"When to the above named sum are added the amount of stock pledged along the line, and the bonds of the Fond du Lac, Janesville and other towns, the total resources of the Company foot up \$2,870,000."

With regard to depot grounds, the report continues:

"The depot grounds at Janesville are large and valuable, covering about twenty acres.

The entrance of the road into the city of Chicago is a favorable one, connecting very advantageously with its depot grounds, and avoiding, in a great degree, any interference with the city or its highways. The Company have been fortunate in securing large depot grounds in Chicago, greatly superior to those of any of the many roads terminating there, except the Illinois Central. These depot grounds have an extensive and valuable commercial river front in the city, about half a mile in length, bringing the traffic and trains of the road, however large and long, into direct communication with the shipping and commercial interest, without any previous stopping, breaking up or division of trains. They have greatly increased in value since their purchase, and would sell, at this time, for ordinary business purposes, for more than a quarter, probably more than a third of a million of dollars. The Company own valuable machine shops at Chicago, and others at Fond du Lac, and have economical depot building and water stations at Chicago, and at other stations along the line of their road.

"The officers of the Company are: William B. Ogden, President; William C. Langley, Daniel Elston, Charles Butler, and Jas. Hickok, Executive Committee."

A glance at the map will show that this road, so far as through business over its whole length is concerned, can hardly compete with the Lake Shore Line, its length being much greater. Its main dependence must be local business, and that thrown on by its connections and extensions with west and south-west from Janesville and Madison.

### JONESBOROUGH, TENNESSEE.

"The Railroads in progress of construction on each side of us are rapidly approaching. We have, all along been of opinion, that the railway locomotive would first appear in Jonesborough from the Virginia Road; and the present position of the work, on either side, favors the idea.

"The Virginia road has been running to Wytheville, a distance of sixty-five miles from the Tennessee line for about four months. The road, however, is in working order to Mt. Airy, a small hamlet fifteen miles this side of Wytheville; but the trains, for passengers at least, do not, as yet, run on that section. The Virginians are now at work laying the track as rapidly as possible toward the Tennessee line, and they will be in a few weeks to the "seven mile Ford," a distance of thirty-three miles from Wytheville. When this point is reached, the trains will come regularly up to it as the Western terminus — and they will thus approach within about fifty-five miles of Jonesborough.

"The Georgia road was completed to Knoxville before the fourth of July last; and now two trains arrive at and leave that place daily



for the south and west. The track laying on the East Tennessee and Virginia Railroad, was commenced on the third of July last, and the contractors are busy at work at present. The work has progressed to about twelve miles—the distance to Strawberry Plains, the first station of importance this side of Knoxville, being about 16 miles, will be reached by the first of October next, or thereabouts. This is eighty-four miles from Jonesborough in that direction. The grading, etc., from the Plains to Russellville, a distance of about 34 miles, is mostly completed, and will not materially delay the track laying; but it will take at least nine months—say to the 1st of July, 1856, before the locomotive can reach that point. Even then it will be fifty miles from Jonesborough. The Virginians ought to be at Bristol by the 1st of April next at least. From this point to Jonesborough is about thirty-three miles. On the first ten miles the grading is completed, and the cross-ties ready to lay down on the track, and the bonds of the State have been drawn to purchase the iron—so that as soon as the Virginians arrive at Bristol, the work of laying the track on our road may commence, and need not be delayed a moment, until it reaches this place, or in fact, Greenville, as the grading is almost entirely completed, and bridge work ready. A year hence these things may be consummated—much to the gratification of our citizens.”—*Journal and Visitor*.

#### SUGGESTIONS ABOUT A RAILROAD TO THE PACIFIC.

BY A. P. ROBINSON, C. E.

We find the following interesting letter on this subject, addressed to Hon. John M. Wood, M. C. in last week's *Railroad Journal*. As the subject is one of general interest we give the letter entire. The suggestions are unique and without being understood as endorsing them we would recommend their consideration to our readers:

In my last I promised you an explanation of the plan I had previously suggested to you for improving the speed, safety, and comfort of railroad travelling. Knowing the interest you feel, as a public spirited man, in all legitimate works of internal improvement, and particularly in the great project of a railroad to the Pacific ocean; and feeling confident of your ready appreciation of any plan for the construction of that road, which would combine desiderata absolutely necessary to its prompt and speedy completion, as well as to its safe and successful operation when completed, I have the more readily promised this; as I consider the plan peculiarly fitted for this road and upon a scale fully commensurate with its importance.

The want of the desiderata referred to, although felt upon all of our long main lines, must be more seriously felt upon that than any other, precisely in proportion to its length, and the primitive state of the country through which it must pass. The conditions which every practical railroad man must con-

cede as necessary to enable this road to triumph in our generation over all the difficulties in the way of its construction; and to secure regular, systematic and successful operation, are—1st, greatly increased speed, with at least the same safety as at the present rates; 2nd, greatly increased safety; 3rd, increased capacity, with accommodations and comforts for travellers far beyond any that can possibly be obtained upon our present roads. All these conditions must be obtained with a durable and substantial road-bed upon *terra firma*. By the method I have suggested, the very elements out of which any one condition is complied with are those out of which all the others are fulfilled; and there can be no question as to obtaining of the following results: viz, the easy attainment of speed of 100 miles per hour; increased safety, even almost to the extent of absolute immunity from accidents, arising from unseen imperfections in the track, or the breaking of axles; increased accommodations and conveniences, even to the extent of sleeping rooms, eating rooms, sitting rooms, and all the comforts which may be had upon our steamers. This at first may seem rather a startling proposition; but is it half so startling as was deemed the first proposition of running a locomotive engine at a speed of ten miles an hour? It will be remembered that an English nobleman agreed to eat the first engine that should ever accomplish this speed. With all that has been accomplished since that time, I am yet unable to sit quietly down in the conclusion that perfection has been obtained in the manner of constructing railroads and railroad machinery; but have faith to believe that as many and as great improvements are yet to be made, as have been since the “Rocket” accomplished her first memorable trip.

Both theoretically and practically, the obstacles which prevent a speed of 100 miles per hour upon our present roads are sufficiently obvious. It is an indisputable fact, that in order to increase the speed of locomotive engines, increased diameter of driving wheel is necessary, and then increased boiler or evaporating surface, in order to create power for these large wheels. Granting that this increased power could be obtained to the extent required for a speed of 100 miles per hour, it is manifest that with driving wheels of the proper size, say ten to twelve feet diameter, engines upon the ordinary general plan of construction would be so *high in proportion to their base* that the speed would be unsafe. The speed would be unattainable, for the reason that the engine could not be kept upon the track. Absolute perfection in a railway track is not attainable, or if it was, it could not be maintained. The crushing of the timber under the rails, the giving way and settling of the joints, the settling of the earthwork, the crushing and wearing of the rails,—all these are contingencies not to be avoided, and occurring more or less as the materials are of better or worse quality out of which the road-bed and tracks are constructed. With our best railways thoroughly ballasted with the cleanest gravel, and constructed of the best materials throughout, these difficulties already occur on every road; and a speed of 100 miles per hour would not be safe, even if the requisite wheels and power could be obtained. But the power cannot be obtained to the required extent for any useful service upon the ordinary gauge of roads now in operation.

These difficulties will naturally bring us to

this conclusion that a wider gauge is necessary. Increased width would, of course, give more space for boiler, would admit larger wheels, without raising the center of gravity, and would thus permit increased speed, with safety. That is to say, the inequalities and imperfections of the track, remaining the same, a higher rate of speed would be allowable and attainable upon a wide than a narrow gauge. This theory, however, only applies in its fullest extent upon a straight line of road.

An increase of gauge brings up other difficulties; viz, increased friction upon curves, increased torsion of axles, increased wear and tear of road, by reason of the necessarily greater weight of engines, etc., etc.;—and all these without attaining advantages of speed, safety, capacity, and convenience to the extent required. I consider any material increase of gauge, therefore, as inadmissible, although I deem an increase of base an absolute condition in obtaining these advantages.

To establish the assertion I have made, with regard to the limit of speed of engines with limited drivers, I beg to state the results of experiments made in England, within a year or two past, with an engine constructed upon the most approved proportions having drivers seven feet in diameter. I have not the published statement at hand; but the experiments were first made on an cold, inclement day, and on a wet rail, with an unfavorable wind, and under circumstances entirely at variance with the necessary conditions for making high speed. The result was a speed of 71 miles per hour, the engine having a surplus of steam, and “blowing off” constantly. A few days subsequent to this trial, it was again taken out, under what was considered the most favorable circumstances,—fair weather, dry rail, and no wind. The result was precisely the same,—a speed of 71 miles per hour, and with no apparent difference in the amount of surplus steam. The conclusion is irresistible.

The speed of the engine was not limited by outside conditions of track or weather, but depended entirely upon something inherent in the engine itself—the absolute incapacity of the pistons and connections to move any faster, and the inability of the steam to enter the cylinders and exhaust with any greater rapidity. It follows, therefore, that had the engine been constructed with larger driving wheels, it would have had capacity for a higher rate of speed; for there was no difficulty experienced in generating steam.

But it is questionable whether with the increased drivers and the consequent increased height of boiler it would have been compatible with safety to have driven it, even at so great a speed as 71 miles per hour. It may not, therefore, be impossible to manufacture an engine simply as an experiment which could be driven at a speed of perhaps 100 miles p. hour, provided the condition of the track did not present insurmountable difficulties. These I have, before noticed. To a certain extent they are unavoidable, and the motion both vertical and lateral thereby created will always present an insuperable obstacle to any great increase of speed upon the ordinary gauges, even if power for useful purposes could be obtained.

The most perfect track, if examined critically, will show a succession of vertical curves produced by settling at the joints, even if depressions are found at no other points. These low joints, if equally depressed when opposite, create a vertical motion only; and when laid



alternate, or not opposite, create a lateral or vibratory motion, still more inconsistent with high speed.

It is found that in consequence of the loose nature of the material near the side of the road-bed, the harder and more compact material in the center becomes a fulcrum upon which the track vibrates; and where a depression is found in one rail, a corresponding elevation is very generally found upon the opposite one. This is more particularly the case where the joints of the rails are laid alternate. There is then at the center a neutral point where there is no disturbance. Could a load be sustained at this point, it is evident that no motion under such conditions would be communicated to it; or taking the worst feature: viz, a settling of one rail without the corresponding elevation of the other; and it is evident that but one-half as much disturbance occurs at the center as at the depressed rail.

Under the present mode of construction, the car bodies and their loads are sustained at points nearly over such rail, and as a necessary result, a disturbance of the level of the track causes a disturbance of the level of the car and its load, the higher and wider these are, the greater and more dangerous is the motion.

Now, if a car-body be sustained by a single point only at the center of each of the trucks under it, and this car-body be of sufficient width to extend out on one side, projecting beyond the rails far enough to be sustained by another truck having another bearing at its center only, either of these trucks might be disturbed in its level, by a depression in one rail and a corresponding elevation in the other, without the least disturbing the level of the car-body. It is precisely upon this principle that I have designed a road. I propose to lay four parallel rails of the ordinary pattern and weight, forming two distinct tracks, each of a gauge of  $2\frac{1}{2}$  to 3 feet, and having an intermediate space of 5 to 6 feet. These tracks I propose to lay upon distinct and separate sleepers, having a trench or ditch between them, but to connect them by ties of iron or other suitable material, so as to preserve a uniform gauge in the intermediate space. I propose to construct narrow trucks for each track, and to rest each car-body upon four trucks, sustained by a single bearing only at the center of each. It is perfectly evident that the car-body and its load would have no vibratory motion communicated to them by the inequalities incidental to each independent track; and that its level could not be seriously disturbed, unless one track should be absolutely lower than the other. Against this latter contingency we have a base of 12 feet for a car no higher than is now used upon a base of less than five feet.

By an arrangement of this kind, the friction upon curves is greatly reduced (for we have only a gauge of  $2\frac{1}{2}$  to 3 feet), the vibration and torsion of the axles are lessened; while at the same time the capacity of the axles to resist all strains is immensely increased; and yet we have the indispensable condition, required for high speed, a wide base. Thus are combined all the advantages ever claimed for a wide gauge, with all the advantages that can possibly be claimed for the narrow gauge; and yet all the disadvantages ever argued by the respective champions of either as belonging to the other are entirely avoided.

I propose also a peculiar system of laying these four rails, and that is with the joints of

the outside ones opposite each other, but alternated with the joints of the inner rails, which shall also be opposite each other. It will be perceived that by this system, each independent track is laid with alternate joints, but always occupying the same relative position with the joints of the opposite track. The inevitable depression of the joint causes a corresponding deviation of its opposite rail at its centre; the middle of each track, or the half-way point between the two rails, is a neutral point where there is no motion; and the inequalities of each track are such that the opposite trucks are either inclined towards or from each other, at precisely the same moment, thus counteracting each other, and avoiding both the vertical and lateral movements of the car-body caused upon an ordinary road by either opposite or alternate joints. There would be, of course, a tendency of the center bearings upon which the car-body rests, to approach toward or recede from each other, as the inclination of the tracks should be inwards or outwards. The simple apparatus used in all well constructed car trucks provides fully for this tendency, permitting the truck to move a short distance laterally, or to incline without moving the center bearing at all. Upon curves where it is now necessary to incline the cars by raising the outer rail, so much as oftentimes to create alarm among passengers, the level of the car-body may be perfectly preserved, and the object fully gained by inclining each distinct track, but keeping the centers always upon a level. I propose to connect opposite trucks in such a manner that one shall act as a guide for its mate. The most dangerous causes of accidents are not great obstacles extending across a track, because such obstacles—whether placed by design or accident—are to be guarded against by a suitable police; but by far the most serious danger is from unseen defects in the track itself, or rather in a single rail of the track, such defects as would not be apparent to the casual and careless glance of the repairers, or as could not readily be seen by the guard or engine driver of a train. A broken chair allowing the ends of the rails to slip by each other, a short and sudden crook in a rail, a worn rail with a short depression crushed in its surface, the breaking of a rail, the sudden settling of a joint under a passing load,—all these are causes of disasters at high speed, and are causes too from which the most serious accidents may occur, because not being readily perceived, they are met with while running with entire confidence.

The connection I propose would prevent any truck meeting with such obstacles, from turning upon its center so as to leave the line of rails, unless the opposite truck to which it is attached should turn also; and the probability of conditions of this kind sufficient to cause derailment, occurring upon both tracks at precisely opposite points, is so remote a contingency that I think I am warranted in claiming that the plan involves almost absolute safety.

As a general thing, the ends of the rails, it is well known, are the points where they first fail; and this simply because they are generally the lowest points. An unavoidable effect, from the manner of constructing our present roads, is, that when a wheel sinks into the depression caused by a yielding joint, the car-body receives a "cant" in that direction, and the impingement upon the rail is increased by the whole impetus of the load. If we keep the load still and resting upon a

single point precisely in the center of each truck, it is manifest that no matter how much the truck may be twisted or distorted out of level by the inequalities of the track, the weight is distributed alike upon all the wheels, and the joint or depression is not subjected to any greater impingement than another part of the rail. Both rails and machinery are thus relieved, and an immense saving made in the *most important* item of cost in operating railways, even at a far higher than ordinary rate of speed.

It is found practicable upon all our roads to run cars constructed with a width about double that of the gauge. Taking this as a proper proportion, I consider it safe to construct cars of 20 feet width for a base of 12 feet, particularly as it is not necessary to increase the height materially. Carrying out the proportions in full, if we double the width of track, we may not only double the width of car, but may also double the height, the center of gravity remaining in the same relative position. But as the height is not increased seriously with the increased base, the center of gravity is, consequently, much lower than in cars of ordinary construction. This consideration, independent of any other, would permit increased speed.

The cars may be of any length within the limits of any required strength; but say, for example, 60 feet. One can readily imagine what conveniences and accommodations may be provided upon cars of these dimensions; and it is, perhaps, unnecessary for me to make any further suggestions. Sixty passengers may have comfortable sleeping accommodations in a night car of this size—not upon shelves hung around the sides of the car, but in the State rooms. More than that number could sleep in a car, if arranged with berths upon sides, and with the portable apparatus used in our steamboat cabins, for the centre.

Other cars may be finished for cooking and eating rooms. Cars for day trains may be divided into saloons and sitting rooms, with sofas, tables, etc.,—or may be provided with uniformly arranged seats, as in our present cars. All the accommodations that can possibly be required by travellers can be had to such an extent as to render it unnecessary for them to alight between the Atlantic and Pacific.

Am I not warranted, therefore, in saying that the proposed method of constructing railways and railway machinery will give ease of motion to the car, will lessen the wear and tear of both road and machinery, will largely increase the comforts and accommodations of travelers, will immensely increase the capacity of the road for any kind of traffic, and will permit a speed of one hundred miles per hour with increased safety? It remains to be seen whether the proper arrangement of machinery can be made, and the power generated to accomplish this speed.

I propose to construct a double locomotive, using the center space between the trucks exclusively for the boiler. There would be two distinct sets of driving wheels opposite each other—two cylinders on each side with all the requisite machinery and trucks, forming substantially two distinct locomotive engines, constructed for a gauge of  $2\frac{1}{2}$  to 3 feet, with a large and capacious boiler between them; the two sides acting entirely independent of each other, and having no connection whatever, except that they would be attached to the same boiler. The axles of the driving wheels not extending across the space occu-



pied by the boiler, it matters not how large the drivers are. The boiler remains in the same position, placed as near the surface of the road-bed as the fire-box will admit. Immense power for propelling the large drivers is obtained by the four cylinders, and in order to supply steam, we have room for inserting a boiler of five feet in diameter, if required.

The fire-box being directly in the rear of the driving wheels, may be enlarged even to the width of the track; and if necessary small auxiliary boilers may be placed between the driving wheels on each side of the main boiler. Thus are obtained all the conditions for speed. Large drivers, powerful machinery, unlimited capacity for generating steam, and at the same time the center of gravity is kept near the surface of the track, and the height of the engine made not at all dependent upon the size of the drivers. The same principle of sustaining the load at points precisely in the center of the truck, as arranged in the case of the cars, may be retained in the construction of the locomotive; and the leading and trailing wheels may be connected as a means of safety, in the same manner. The weight of engine and also the weight of cars is increased beyond those now in use; but the number of rails for sustaining them is proportionally increased. This is a peculiar feature of this invention to which I call your attention. In enumerating the disadvantages attendant upon the increase of gauge, I have mentioned the increased wear and tear of rails, by reason of the increased weight of machinery. It might be asked, why not as well make the rails heavier? Why not have two rails weighing each 120 lbs per yard, as well as four rails, each 60 lbs per yard? The answer to this is, that all experience proves the durability of a rail, or its capacity to resist the action of heavy loads, not to depend so much upon the weight per linear foot after reaching a certain limit, as upon the tenacity or adhesiveness of the particles of the iron. The rail itself may not break or bend, and yet its surface crushes and laminates under the action of heavy locomotives, so as to be unfit for use, and still nearly all of the original iron is left. Nothing is added to the capacity of the iron to resist this crushing or lamination of the surface, by making it heavier or stiffer. Manifestly the proper way and the only sure way to preserve the rails, while increasing the weight and power of the engines, is not to increase the size of the rail, but to increase the number of wheels or the number of rails.

The center space between the two tracks is available for way trains running short distances, made up of the ordinary engines and cars; or it may be used for the repair and gravel trains of the road. For these latter, the arrangement is peculiarly apt, as the ballasting may be deposited in each track where it is needed, instead of being wasted upon the slopes of the embankments, or in the ditches or cuttings.

At stations in large and important towns, turnouts and branches from the narrow tracks may be constructed, upon which cars propelled by horses may be used, connecting the tracking operations in these towns directly with the larger cars at any point upon the tracks. I suggest the minor matters as conveniences following directly in the wake of the construction of a road of this character.

I have submitted this plan to some of the most eminent, theoretical, and practical railroad men in the country, both in the East and

West, and with the exception of one single objection, it has been universally approved. It has been unhesitatingly conceded that every result I claim for it, can be attained. The objection made by a few individuals is its increased cost. Let me reply to this objection with a few practical statements, and I have done. The cars I propose to build are about twice the size of our present cars. If provided with the same kind of seats and no better or more luxurious accommodations, they will certainly contain twice as many passengers. Having twice the number of rails and bearing points under them, we may load them twice as heavily; and may we not as cheaply construct the one car carrying one hundred and fifty passengers, as the two cars carrying seventy-five each? If we reflect a moment we must decide that the same capacity would be obtained for a less cost in the large cars than in the smaller. The increase is principally in the width. The same sides and the same windows that are required for the small car answer for the large one. So is it in the freight cars. If twice the size, and costing twice as much per car, it is sufficient to assert that they carry twice the load. Suppose the engines each to cost twice as much as the ordinary engines, they have twice the capacity.

For an equal amount of traffic then, the equipment cannot possibly cost any more upon this than upon any road. There would be the extra cost of two rails, with the chairs, spikes, and labor of laying them. Estimating them at 100 tons per mile, at present rates, this additional track might cost \$7,500 per mile. The extra width of road-bed would be about \$5,000 per mile upon an average road, making a total cost of \$12,500 per mile only, while quadrupling its capacity. I cannot consider this objection as being worthy of any serious consideration; for once demonstrate that by the plan, the results I claim can be obtained, and that the Mississippi river and the Pacific ocean can be brought within 18 hours of each other; and I say, the magnificence of such an accomplishment will almost warrant any expenditure.—Those who admit the feasibility of the whole thing, and yet object on the ground of this comparatively trivial increase of cost, might with equal propriety object to the construction of our present railways, because they cost so much more than turnpikes. The particular applicability of this plan to the Pacific road needs but little comment. Aside from any considerations connected with the operation of the road when completed, there is one circumstance connected with its construction arguing incontrovertibly in its favor, viz:—That the time in which the work can be constructed is not limited by any difficulties in the grading of the road-bed, and its preparation for the rails; but simply by the laying of the track. The materials for this must be transported from the termini, and the contingencies attendant upon this transportation over any new road, with incomplete and imperfect regulations, without frequent or convenient stations, or assistance in case of accident, except at long intervals, always delay and embarrass this work.

I know from practical experience that, with proper supplies of materials, one mile of track per day may be laid down quite as easily as one quarter of a mile, for this depends only upon the number of men employed; but I also know that as an average not more than one-quarter of a mile per day is

laid upon any road of 50 miles in length, where the materials are transported over the road; and this is entirely in consequence of the delays and contingencies connected with this transportation. If such be the case upon a road 50 miles in length, how must these difficulties multiply upon a road 500 or 1,000 miles in length? Is it not therefore an unanswerable argument, granting all that is claimed for this plan, that the facilities of all kinds for transporting men and materials, being increased four-fold, the speed and certainty of transportation and delivery being increased in the same proportion—will it, I ask, be denied that the work can be accomplished in one quarter the time required, if constructed upon the ordinary plan? There can be no doubt that the saving consequent upon this increased speed and certainty of delivery will counterbalance the increased cost of the road.

In common with, I believe, every "Young American," I have the strongest desire to see this road commenced; but I also desire to see it completed. To ensure the latter I desire to see it commenced upon a plan which will not be a thing of by-gone days, before it is half done. No one great improvement in locomotion has been made since the first introduction of railways. That was a great step. All the rest has been by slow degrees, and small improvements in the details. I believe the time has arrived when another great step must be soon made. Certainly if to be made within the next quarter of a century, it would be well that it should be made before the Pacific road is built.

Such, in as brief a manner as I could well explain it, and with as few comments as the interesting nature of the subject would allow me to use, is the character of the plan I would suggest. I have prepared models of both locomotive and car which are now in Portland, and are at your service, as is also this rather lengthy communication.

From your most obt. servant.

A. P. ROBINSON.

#### CENTRAL OHIO RAILROAD.

A mortgage was recently executed in this city covering all the personal effects of the Central Ohio Railroad Company. The Company has been greatly annoyed for some months by certain speculators who have been engaged in buying up small claims against the road at a large discount, and collecting the same by judgment and execution, thus consuming a considerable amount of the earnings of the road, and exhausting their means of paying the current expenses and prosecuting such repairs, etc., as the interests and progress of the work demand. The protection of the creditors of the road was another object in executing the mortgage. It is the impression of many skilled in the intricacies of railroad financing, that an enlargement of the stock basis of the road, say a million of dollars, and an extension of twelve months by the creditors, would enable the Company to cancel their floating debt, pay the interest on their mortgage bonds, and a fair dividend on their capital stock. If such can be shown to be the fact, it is obviously the interest of all parties to acquiesce in such an arrangement.—*Times*.

MOBILE AND OHIO RAILROAD.—Track laying has been again resumed on the Mobile & Ohio Railroad, and the cars are now running to within a few miles of Marion.



## Miscellaneous and Mechanical.

### HOW CAR WHEELS ARE PUT ON THE AXLE.

When we see a thing done and done neatly, without having ever witnessed the details of its execution, we are very apt to suppose that it is a matter of great simplicity, and that it is as easily done, as it is to give the word to have it done. Of such a character are many of the operations employed in the manufacture of cars and locomotives; the car or the locomotive consists of a vast number of little pieces, each one requiring trouble to make it of the right dimensions, and suitable for the place it is to occupy; and still further trouble to put it in its proper place.

Just so it is with car wheels. We see them in place, and rarely think by what means they were got there. Many suppose that they fit loosely and are keyed on, or are driven on by a sledge hammer, and then keyed. Now, neither of these are correct. The car wheel is subject to many jars and strains, entirely different from the strain on an ordinary wheel, and, therefore, its fastenings must be strong in proportion. The wheel which is generally of chilled cast iron, is accurately centered, and the hole drilled to the standard size. The axle, made of the best wrought iron, is also turned with great exactness to the same size. The axle is made a close fit, or in other words, it just fills the hole in the wheel. It must not be made larger, or in driving on it will burst the wheel. The wheel and axle are now placed in an immense press, and the axle thus forced into its place. When this is done properly, the whole, wheel and axle, are nearly as solid as a single piece of iron.

### SEBASTOPOL AND HARD ROCKS.

By HENRY A. HILDRETH, Geologist and Mining Eng.

The siege of Sebastopol, by the allied armies of France, England, Turkey and Sardinia, presents many considerations worthy of attention by the student in Geology and mining engineering. The remarkable resistance offered by the Russians enclosed in this series of fortifications to the best appointed siege train the world has ever seen, managed too by the most skillful engineering talent which those scientific countries, France and England, could produce—has been written about, wondered about, and variously commented upon by the press—yet, there is one view of this resistance, which, either from design or otherwise, appears to have been totally overlooked, viz., the nature of the rocks upon which, and of which the Russian works are built. Men educated in the Polytechnic schools of France and England, and of our own West Point said, Gibraltar, San Juan d'Ulloa, and St. Jean d'Acre, have twice been taken by siege, as well as Rhodes, and the renowned Moro Castle, of the Havana, and why do these Russian works offer such an unaccountable resistance? The answer, it appears to me, is, that fortifications built of the most tenacious rocks known to geologists, and adequately defended, have never been reduced by regular siege operations. Gibraltar, which is excavated in porphyry, that ranks with trap and basalt as

to its hardness, has been twice captured; it is true, but in each instance by treachery. San Juan d'Ulloa is built of sandstone, and the Moro Castle and St. Jean d'Acre are, I am assured, built of limestone, both of which rocks are less resistant or more friable than basalt, trap and porphyry. A granite fort, bombarded by Lord Nelson's fleet, showed no signs of injury, although this rock is not esteemed as resistant as trap, basalt or porphyry. It, therefore, appears evident, that works constructed of the softer rocks, such as limestone and sandstone, have been battered down by canon balls and shells, in several instances, while works constructed of either of the most resistant rocks have seldom, if ever, been demolished and reduced by such means.

The rock which forms the harbor of Sebastopol, and upon which the forts that defend it are built, is *basalt*, a rock quite as hard as trap. This fact appears evident from all the maps of Sebastopol, the bold columnar structure of the shores of the Black Sea, near this port, and the outline of the harbor itself. Streams of this igneous rock, in a molten condition, have flowed downward toward the center of the harbor from either shore, and at the extreme point of either of such streams of basalt, the Russians have constructed their marine batteries; and it appears probable, also, that the works themselves have been built of this extremely hard rock. Hence it is evident that the reason why the Allies have not yet been able to effect an impression upon these works, with all their artillery, is simply a geological one, directly to be referred to this hard rock, which prevents successful mining operations, for the purpose of blowing up the walls of the forts, and causes the canon balls to fall as harmless as hail upon them. I have been confirmed in this geological opinion, formed from an examination of correct maps of Sebastopol, by the fact that a specimen of this rock, which has recently been sent to my friend, Lieutenant W. D. Porter, of the United States Navy, by one of the French officers, is unquestionably basalt. But it is not alone the nature of this rock that has proved a powerful means of defence. The Russians, it must be confessed, have not been at all behind the Allies in their application of all the improvements in modern science. At Silistria, they learned from the Turks the effectual resistance offered by earthworks, erected in advance of, and covered by, the stone works, and applied them with remarkable success to resist an approach by parallels. Whether Colonel Todleben was the first to observe and apply this fact, or not, we have no direct information, but are led to infer the fact. The advantage of earthworks we have observed in our own country, in the defence of Fort Moultrie and Fort Brown.

To New York city must be given the credit of having first applied the hardest rocks to an economical purpose in this country. The well-known Russ pavement of Broadway, and other streets, owes its superior character to the fact that it is trap rock; and, it may be regarded as one of the most fortunate circumstances of this city, that from the high lands of the Nevisink to more than fifty miles up the Hudson, on its west bank, there occurs a stupendous trap dyke, full an eighth of a mile broad, as shown by the cut of the New Jersey Railroad, which will furnish for all coming time a desirable pavement for this great city and its suburbs, as well as for an

article of export. It is vastly superior to granite for this purpose.

The cost of excavating, by mining operations, the various rocks in which the mineral lodes are found, consequent upon their degrees of hardness, may not be out of place in this connection. I take for a near approach to this cost, as it actually occurs, the estimates of an experienced Cornish mining Captain, accustomed to contract for such work. These estimates, it should be observed, are made sufficiently "large" to cover the actual expense of labor in excavating, tools, sharpening tools, powder, charcoal, candles, superintendence, and in fact all cost, except dressing the ore raised, and also including liberation of water to the depth of 200 feet. This expense is for *sinking* shafts and for *driving* levels. The cost of driving is the smallest sum named, and that of sinking the largest sum named. The estimate is for one fathom of six feet, viz:

|                            |                   |             |
|----------------------------|-------------------|-------------|
| Trap and basalt.....       | from \$40 to \$50 | per fathom. |
| Granite and porphyry.....  | from 20 to 25     | "           |
| Slate Rock.....            | from 20 to 30     | "           |
| Magnesian limestone.....   | from 17 to 20     | "           |
| Sandstone.....             | from 15 to 20     | "           |
| Lime Rock.....             | from 15 to 20     | "           |
| Decomposed mica slate..... | from 3 to 9       | "           |
| Decomposed Granite.....    | from 2 to 5       | "           |

### Mining Magazine.

**MORE COAL FOR PHILADELPHIA.**—The Allegheny Railroad and Coal Company own about 80,000 acres of land on the Allegheny Mountains, and after the abandonment of the old Portage Railroad, will be about the only shippers from the Allegheny region. The capital is one million of dollars, in shares of \$25, which includes a preferred stock of 4500 shares upon which an interest of 7 per cent. is guaranteed. The company is free from debt, and will operate upon the cash principle. There has been an active demand for the preferred stock, over 1000 shares having been sold during the last week, at the office of the Company, No. 28 Philadelphia Exchange. There remain about 1000 shares to be disposed of. A superintendent, with a sufficient force of hands, has been sent to open the collieries, and prepare timber. The location of the colliery will be on a tract of 800 acres, at the west end of the great tunnel on the Pennsylvania Railroad. The workings will have the very unusual advantage of being drained by the tunnel, and for 20 years will be relieved from the necessity of pumping water. If the Pennsylvania Railroad Company construct, in time, the sidings necessary for their own cars, and affix ordinary business facilities, coal can be shipped from this locality in less than three months, and a business of 200,000 tons per annum can be furnished to the Railroad. Few mining companies have been able to commence operations with as bright prospects.—We wish success to every enterprise which develops our resources, brings business upon our Pennsylvania Railroad, and increases the supplies of Philadelphia.

**CITIES AND TOWNS.**—The Milwaukee *Sentinel* gives the following table of the population, as ascertained by the recent census of the principal cities and villages in Wisconsin, on the 1st of June, 1855:

|                    |        |
|--------------------|--------|
| Milwaukee.....     | 30,447 |
| Madison.....       | 8,664  |
| Watertown.....     | 8,526  |
| Racine.....        | 8,044  |
| Janesville.....    | 7,018  |
| Fond du Lac.....   | 4,230  |
| Oshkosh.....       | 4,118  |
| Kenosha.....       | 3,897  |
| Sheboygan.....     | 3,630  |
| Mineral Point..... | 2,328  |
| Manitowoc.....     | 2,165  |
| Portage.....       | 2,062  |
| Waukesha.....      | 1,818  |
| Green Bay.....     | 1,644  |
| Appleton.....      | 1,474  |
| Platteville.....   | 1,424  |
| Menasha.....       | 1,264  |
| Ozaukee.....       | 1,174  |
| Oconomowoc.....    | 605    |



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

| COMPANY.                                         | NATURE OF BOND.                       | INT. DUE.     | OFF'D. | ASK'D. | SHS. OFF'D. | ASK'D.   |
|--------------------------------------------------|---------------------------------------|---------------|--------|--------|-------------|----------|
| Alabama and Tennessee.....                       | 1st mortgage, convertible in 1872     | 7 1872        |        |        |             |          |
| Baltimore and Ohio.....                          | Transferable, Taxed.....              | 6 1885        | 79%    |        | 100         | 56½ 58   |
| Do do.....                                       | Coupons. Not Taxed.....               | 6 1875        |        |        |             |          |
| Do do.....                                       | " " " ".....                          | 6 1880        |        |        |             |          |
| Do do.....                                       | " " " ".....                          | 7 1860        |        |        |             |          |
| Do do.....                                       | " " " ".....                          | 6 1885        |        |        |             |          |
| Bellefontaine and Indiana.....                   | 1st mortgage, convertible.....        | 6 1866        |        | 98     | 50          | 45       |
| Buffalo and Penn. State Line.....                | 1st mortgage, not convertible.....    | 6 1866        |        |        |             |          |
| Chicago and Rock Island.....                     | 1st mortgage, convertible.....        | 7 1870        | 95%    | 98     |             | 94 104   |
| Chicago and Mississippi.....                     | 1st " " " ".....                      | 7 1862        |        |        |             |          |
| Do do.....                                       | 2d " " " ".....                       | 7 1874        | 65     |        |             |          |
| Chicago and Aurora.....                          | 1st " " " ".....                      | 7 1866        |        |        |             |          |
| Cincinnati, Newcastle and Mich. Real Estate..... | " " " ".....                          | 7 1859        |        | 100    |             | 107 111  |
| Cleveland, Columbus, and Cin'tist                | 1st mortgage, convertible.....        | 7 1859        |        |        |             |          |
| Do do.....                                       | No mortgage, convertible.....         | 7 1853        |        |        |             |          |
| Cleveland and Mahoning.....                      | " " " ".....                          | 7 1861        |        |        | 100         |          |
| Cleveland, Paines, & Ashtabula.....              | 1st mortgage.....                     | 7 1861        |        |        |             |          |
| Do do do.....                                    | 2d " not convertible.....             | 7 1860        |        |        |             | 67 70    |
| Cleveland and Pittsburgh.....                    | 1st " convertible.....                | 7 1860        |        |        |             |          |
| Do do.....                                       | 2d sec. convertible.....              | 7 1873        |        |        |             |          |
| Cleveland and Toledo.....                        | 1st mort. not conv. '73.....          | 7 1863        | 93     | 94     | 50          | 81½ 83   |
| Cleveland, Zanesville, & Cin'ti                  | " " " ".....                          | 7 1867        |        |        |             | 74 78    |
| Cincinnati, Hamilton & Dayton.....               | 1st mortgage " till 1855.....         | 7 1860        | 80     | 81     |             |          |
| Do do do.....                                    | 2d mortgage.....                      | 7 1860        | 42     | 43     |             |          |
| Cincinnati, N. C. & Michigan.....                | 1st mortgage, real estate, conv.....  | 10 5 & 10 y's | 42     |        |             | 12½ 14   |
| Cincinnati Western.....                          | " " " ".....                          | 8 " "         | 68     | 66     |             | 32½ 33   |
| Cincinnati, Wil. and Zanesville.....             | 2d " " " ".....                       | 7 " "         |        |        |             |          |
| Cincinnati, Ind. and Chicago.....                | " " " ".....                          | 8 1859        | 38     | 41     |             | 12½ 15   |
| Cincinnati and Chicago.....                      | Real Estate.....                      | 7 1862        | 75     | 76     |             |          |
| Columbus, Piqua and Indiana.....                 | 1st mortgage, convertible.....        | 7 1862        | 60     | 61     |             |          |
| Do do do.....                                    | 2d " " " ".....                       | 7 " "         |        |        |             |          |
| Columbus and Xenia.....                          | 1st mortgage, convertible.....        | 7 1859        | 67     | 67     |             | 91 93    |
| Covington and Lexington.....                     | 2d " " " " till 1862.....             | 7 1883        | 66     | 60     | 50          | 26 28    |
| Do do.....                                       | Income.....                           | 6 " "         | 50½    | 51     | 50          | 20 22    |
| Dayton and Michigan.....                         | 1st " " " ".....                      | 7 1867        |        |        | 50          | 22½ 23   |
| Dayton and Western.....                          | 1st " " " ".....                      | 7 1862        |        |        |             |          |
| Dayton, Xenia and Belpre.....                    | 1st " " " ".....                      | 7 1864        | 26     | 30     |             |          |
| Eaton and Hamilton.....                          | 1st mortgage.....                     | 7 1862        |        | 60     | 25          | 45 50    |
| Erie and Kalamazoo.....                          | 1st mort, guaranty Mich. S. R. R.     | 7 1862        |        |        |             |          |
| Evansville and Crawfordsville.....               | 1st mortgage.....                     | 7 " "         | 80     | 81     |             | 12½ 14   |
| Fort Wayne and Southern.....                     | " " " ".....                          | 7 " "         |        |        |             |          |
| Franklin and Warren.....                         | " " " ".....                          | 7 " "         |        |        |             |          |
| Galena and Chicago Union.....                    | Pledge of second section, con ver.    | 10 1853-6     | 92%    |        | 100         | 121½ 122 |
| Hillsboro and Cincinnati.....                    | 1st mort.....                         | 7 1878        | 60     | 61     | 50          | 25 27    |
| Illinois Central.....                            | 1st mortgage, not convertible.....    | 6 1876        | 79     | 81     | 100         | 94 96    |
| Do do.....                                       | Freeland.....                         | 7 " "         | 88½    | 89     |             |          |
| Indiana Central.....                             | 1st mortgage, convertible.....        | 7 1866        | 63%    | 75     | 50          | 50 52    |
| Do do.....                                       | " " " ".....                          | 10 1857       | 80     | 50     |             |          |
| Indianapolis and Bellefontaine.....              | 1st " " " ".....                      | 7 1860-1      | 75     | 25     | 50          | 50 50    |
| Indianapolis and Cincinnati.....                 | 2d mortgage.....                      | 7 " "         | 80     | 82     | 50          | 62 63    |
| Indianapolis and Lafayette.....                  | 1st " " " ".....                      | 7 1861        |        |        | 50          |          |
| Jeffersonville.....                              | 1st " not " " ".....                  | 7 1861        |        |        |             | 36       |
| Junction (Ohio).....                             | 1st " " " ".....                      | 7 1867        |        |        | 50          | 11 15    |
| Do Indiana.....                                  | Real Estate.....                      | 10 " "        | 70     | 72     |             | 10 15    |
| La Crosse and Milwaukee.....                     | " " " ".....                          | 8 1864        | 77     | 82     | 100         |          |
| Little Miami.....                                | 1st mortgage, not convertible.....    | 6 1883        | 80     | 83     | 50          | 96 97    |
| Do do.....                                       | " " " " till 1855.....                | 7 1861        |        |        |             |          |
| Louisville and Nashville.....                    | " " " " unconvertible.....            | 7 1858        |        |        | 100         |          |
| Lyons', Iowa, Central.....                       | 1st mortgage, convertible.....        | 7 1873        |        |        |             |          |
| Mad River and Lake Erie.....                     | 1st mortgage, convertible till 1855   | 7 1853-6      |        | 75     | 50          | 25 28    |
| Do do.....                                       | 2d " " " ".....                       | 7 1866        |        | 76     |             |          |
| Do do.....                                       | Dividend.....                         | 7 1860        |        | 75     |             |          |
| Madison and Indianapolis.....                    | 1st mortgage, convert. after 1853,    | 6 1861        |        |        |             | 50       |
| Marietta and Cincinnati.....                     | Domestic Bonds.....                   | 7 " "         |        |        | 50          | 20½ 30   |
| Do do.....                                       | United 2d " " " ".....                | 7 " "         |        |        | 50          |          |
| Hillsboro and Cincinnati.....                    | 1st " " " ".....                      | 7 " "         |        |        |             |          |
| Maysville and Big Sandy.....                     | " " " ".....                          | 7 " "         |        |        |             |          |
| Maysville and Lexington.....                     | 1st mortgage, convertible.....        | 6 1873        |        |        | 50          |          |
| Memphis and Charleston.....                      | " " " ".....                          | 7 " "         |        |        |             |          |
| Michigan Central.....                            | No mortgage, convertible.....         | 8 1860        |        |        |             | 97 100   |
| Do do.....                                       | " " " ".....                          | 8 1853-6      |        |        |             |          |
| Do do.....                                       | " " not " " ".....                    | 8 1857-8      |        |        |             |          |
| Michigan Southern.....                           | 1st " " " ".....                      | 7 1860-90     |        | 100    |             | 98½ 101  |
| Milwaukee and Mississippi.....                   | 1st " " " ".....                      | 8 1862        |        |        |             |          |
| Mobile and Ohio.....                             | 1st mortgage 6s. 1884.....            | 7 " "         |        |        |             |          |
| Nashville and Chattanooga.....                   | " " " ".....                          | 7 " "         |        |        |             |          |
| New Albany and Salem.....                        | mortgage on 1st section.....          | 10 1858-62    |        |        | 50          | 15 18    |
| Do do.....                                       | 1st " on other sec. con.              | 8 1864-75     |        |        |             |          |
| New Castle and Richmond.....                     | 1st " convertible.....                | 6 1873        |        |        |             |          |
| New York Central.....                            | " " " ".....                          | 7 1867        | 103½   | 105    |             | 91½ 95   |
| New York and Erie.....                           | 1st mortgage, not convertible.....    | 7 1871        |        | 81 83  | 100         | 55 56    |
| Do do.....                                       | 2d " convertible.....                 | 7 1883        | 94     | 97     |             |          |
| Do do.....                                       | " " " ".....                          | 8 1873        |        |        |             |          |
| Northern Cross, Ill.....                         | 1st mortgage, convertible.....        | 7 1861        |        | 98     |             |          |
| Northern Indiana.....                            | 1st " not convertible.....            | 7 1861        |        | 90     | 91          | 105 106  |
| Do do.....                                       | " " " " Goshen line.....              | 7 1866        |        |        |             |          |
| Do do.....                                       | Construction Bonds.....               | 7 1861        |        |        |             |          |
| Ohio Central.....                                | 1st mortgage, convertible.....        | 7 1861        | 61     |        |             | 30 33    |
| Ohio and Mississippi.....                        | 2d " " " ".....                       | 7 1860        | 50     | 53     |             | 6% 8     |
| Ohio and Indiana.....                            | 1st " " " ".....                      | 7 1867        |        |        | 50          | 14 16    |
| Ohio and Pennsylvania.....                       | 1st " " " ".....                      | 7 1865        |        |        |             |          |
| Do do.....                                       | Income. No mortgage, convert.         | 7 1872        |        |        | 50          |          |
| Pacific, Mo.....                                 | " " " ".....                          | 7 " "         |        |        |             |          |
| Panama.....                                      | 2nd issue.....                        | 7 " "         | 107½   | 108    |             | 104½ 106 |
| Parkersburg (or N. western Va.)                  | Guar. City of Balt.                   | 7 1873        |        |        |             |          |
| Pennsylvania.....                                | 1st mortgage, convert. till 1860..... | 6 1880        |        |        | 50          | 43½ 46   |
| Peru and Indianapolis.....                       | 1st " " " ".....                      | 7 " "         |        |        | 25          | 25 27    |
| Rock River Valley Union.....                     | 1st " " " ".....                      | 7 1872        |        |        | 50          |          |
| Sandusky and Mansfield.....                      | 1st " " " ".....                      | 7 1860        |        |        |             |          |
| Do do.....                                       | 2d " " " ".....                       | 10 1853-7     |        |        |             |          |
| Scioto and Hocking Valley.....                   | 1st " income.....                     | 7 1861        | 50     | 51     | 50          | 50 51    |
| Southwestern, Tennessee.....                     | " " " ".....                          | 7 " "         |        |        |             |          |
| Springfield and Columbus.....                    | " " " ".....                          | 7 1865        |        |        |             |          |
| Stuebenville and Indiana.....                    | 1st mortgage, convertible.....        | 7 1865        |        |        |             |          |
| Terre Haute and Alton.....                       | 1st " " " ".....                      | 8 1862-72     |        | 91 93  |             |          |
| Do do do.....                                    | 2d " " " ".....                       | 8 1865        |        | 80½ 93 |             |          |
| Terre Haute and Richmond.....                    | 1st " " " ".....                      | 6 1866        |        |        |             |          |
| Do do do.....                                    | 2d " " " ".....                       | 7 1863        | 87     | 88     | 50          |          |
| Do do do.....                                    | Guar. of C... 1883.....               | 7 1863        |        |        |             |          |

## STOCK TABLE.

CORRECTED WEEKLY.

GOVERNMENT SECURITIES.

|                        | INT. | DUE. | OFF'D. | ASK'D |
|------------------------|------|------|--------|-------|
| U. S. Loan.....        | 6    | 1856 | 103½   | 105   |
| Do .....               | 6    | 1862 | 112    | 113   |
| Do .....               | 6    | 1867 | 117½   | 120   |
| Do .....               | 6    | 1868 | 118    | 120   |
| (Int. ceased July 1) 5 |      | 1853 |        | 102   |
| Do .....               |      | 1862 |        | 118   |
| Do " .....             | 6    | 1867 |        | 118   |
| Do " .....             |      | 1853 |        | 101   |

## STATE. 1955

|                             |      |         |          |
|-----------------------------|------|---------|----------|
| Alabama.....                | 5    |         |          |
| California.....             | 7    | 1870    | 86 88    |
| Arkansas.....               | 6    | .....   | 96       |
| Georgia.....                | 6    | .....   | 98 99    |
| Do.....                     | 7    |         |          |
| Illinois Canal Bonds.....   | 1860 |         |          |
| Do do registered.....       | 1860 |         |          |
| Do do.....                  | 1847 |         |          |
| Do do registered.....       | 1847 |         |          |
| Do do Internal Impt. 6..... | 1847 | 105     | 106      |
| Do Interest do.....         | 5    | 72      | 75       |
| Indiana.....                | 5    | 81%     | 84       |
| Do.....                     | 2½   | 54      | 55       |
| Do Canal Loan.....          | 6    |         |          |
| Do do preferred.....        | 5    |         |          |
| Do special preferred.....   | 5    |         |          |
| Kentucky, 30 years.....     | 6    | 1871    | 101      |
| Do 16 years.....            | 6    |         | 102      |
| Do large bonds.....         | 6    | 1869-72 | 100%     |
| Do.....                     | 5    |         |          |
| Louisiana.....              | 6    |         | 91% 93   |
| Michigan.....               | 6    |         | 97 98    |
| Missouri.....               | 6    |         | 88% 90   |
| New York.....               | 6    | 1860    | 111 112  |
| North Carolina.....         | 6    |         | 99 100   |
| Ohio.....                   | 6    | 1856    | 102      |
| Do.....                     | 6    | 1860    | 105% 106 |
| Do.....                     | 6    | 1870    | 118 119  |
| Do.....                     | 6    | 1875    | 118 119  |
| Do.....                     | 5    | 1855    |          |
| Pennsylvania.....           | 6    |         |          |
| Do.....                     | 5    | 1870    | 87 89    |
| Tennessee, long loan.....   | 6    | 1890    | 94 97    |
| Do Coupons.....             | 5    |         | 81 83    |
| Virginia.....               | 6    | 1886    | 97% 99   |

## CITY SECURITIES.

|                     |    |         |      |      |
|---------------------|----|---------|------|------|
| Albany.....         | 6  | 1871-81 | 99%  |      |
| Allegheny.....      | 6  | 1875-7  | 80   |      |
| Baltimore.....      | 6  | 1870-90 | 99%  | 100% |
| Do.....             | 5  | 1865    |      |      |
| Boston Bonds.....   | 4½ | 1860    |      |      |
| Chicago.....        | 6  | 1873-7  | 92½  | 95   |
| Cleveland.....      | 6  | 1879    | 103½ | 105  |
| Cincinnati.....     | 6  | 1860-92 | 96   | 96½  |
| Do.....             | 6  | 1897    |      |      |
| Do.....             | 5  | 1884    |      |      |
| Do W. W.....        | 6  | 1865    |      |      |
| Covington.....      | 6  | 1857    | 80   | 80   |
| Jeffersonville..... | 6  | 1890    | 70   |      |
| Louisville.....     | 6  | 1880    | 86½  | 87   |
| Memphis.....        | 6  | 1882    |      | 72½  |
| New York.....       | 7  | 1857    | 100½ |      |
| Do.....             | 5  | 1858-00 | 98   | 99   |
| Do.....             | 5  | 1870-5  | 97   | 100  |
| Do.....             | 5  | 1890    |      |      |
| Philadelphia.....   | 6  | 1876-90 | 94½  | 95   |
| Pittsburgh.....     | 6  | 1869-78 | 81   | 82   |
| Do coupons.....     | 6  | 1883    |      |      |
| Racine.....         | 7  | 1873    | 85   | 86   |
| St. Louis.....      | 6  | 1870    | 85   | 86   |
| Wheeling.....       | 6  | 1873    | 73   | 75   |

## COUNTY BONDS.

|                                                             |   |        |     |    |
|-------------------------------------------------------------|---|--------|-----|----|
| Bourbon, Ky.....                                            | 6 | 1881   | 77½ | 80 |
| Darke, O.....                                               | 7 |        |     |    |
| Fairfield, O.....                                           | 7 | 1862   |     |    |
| Payette, Ky.....                                            | 6 | 1881-3 | 75  | 75 |
| Hancock, Ky.....                                            | 7 |        | 70  | 75 |
| Mason, Ky.....                                              | 6 | 1881   | 73  | 76 |
| McCraken Co. Ky., endorsed by<br>New Orleans and Ohio R. R. |   |        |     |    |
| St. Louis.....                                              | 6 | 1866   | 80  | 85 |
| Do.....                                                     | 7 | 1871   |     |    |

## BANKS

| BANKS.                                |     |     |
|---------------------------------------|-----|-----|
| OHIO.                                 |     |     |
| American Exchange Bank, N. Y.....     | 118 |     |
| Ohio Life Insurance and Trust Co..... | 98  | 100 |
| Washington Insurance Co.....          | 84  | 85  |
| City Insurance.....                   | 70  |     |
| Cincinnati Insurance Co.....          | 84  |     |
| National Insurance.....               | 75  | 80  |

KENTUCKY.

|                                    |                   |
|------------------------------------|-------------------|
| Bank of Kentucky and Branches..... |                   |
| Northern, and Branches.....        | 100               |
| Southern, and Branches.....        |                   |
| Bank of Louisville.....            | 93                |
| Kentucky Trust Co.....             |                   |
| Farmers' Bank of Kentucky.....     | 105 $\frac{1}{2}$ |
| Commercial Bank of Kentucky.....   | 108               |

## INDIANA

State Bank and Branches.....

TENNESSEE  
ches.....

State Bank and Branches.....  
Union.....  
Planters.....

.....  
LAND WARRANTS

|                                  | Buy'g | Sell'g |
|----------------------------------|-------|--------|
| 160 acre warrants, per acre..... | \$1   | 10     |
| 80 acre warrants.....            |       |        |
| 40 acre warrants.....            |       |        |



BALTIMORE AND OHIO RAILROAD.—The following are the earnings of this road for September:

|                  | Main stem.          | Wash Br.           | Totals.             |
|------------------|---------------------|--------------------|---------------------|
| For Passengers.. | \$61,566.80         | \$28,690.19        | \$90,257.07         |
| For Freight..... | 279,058.79          | 9,344.75           | 288,403.54          |
|                  | <u>\$340,625.67</u> | <u>\$38,034.94</u> | <u>\$378,660.61</u> |

Compared with the same month of last year this statement shows an increase of \$32,414.49; and the receipts of the year, compared with those of 1854, show a total increase of \$102,137. The gross revenue for the fiscal year ending with September, is \$4,120,578.71.

INDIANAPOLIS AND CINCINNATI RAILROAD.—The Receipts of this Road for the month ending September 30, 1855:

|                 |                    |
|-----------------|--------------------|
| Passengers..... | \$21,530 80        |
| Freight.....    | 17,616 77          |
| Mail.....       | 752 08             |
| Express.....    | 360 00             |
| Total.....      | <u>\$40,259 65</u> |

COVINGTON AND LEXINGTON RAILROAD.—Earnings of the Covington and Lexington Railroad for the month of September, 1855:

|                                    |             |
|------------------------------------|-------------|
| Freight.....                       | \$21,034.05 |
| Passengers.....                    | 14,574.17   |
| Mail.....                          | 813.83      |
|                                    | <hr/>       |
| For the same month last year.....  | \$36,422.05 |
|                                    | 16,723.10   |
|                                    | <hr/>       |
| Increase (over 120 per cent.)..... | 19,699.95   |

The October receipts are estimated at \$40,000.

PHILADELPHIA AND READING RAILROAD.--The following is a semi-official statement of the business of the Philadelphia and Reading Railroad for the month of August:

|                                                                              | 1855.                | 1854.                |
|------------------------------------------------------------------------------|----------------------|----------------------|
| Received from Coal.....                                                      | \$436,651 22         | \$455,597 68         |
| "    "    Merchandise..                                                      | 28,690 14            | 20,117 31            |
| "    "    Travel, etc...                                                     | 34,089 32            | 29,630 40            |
|                                                                              | <hr/> \$500,230 68   | <hr/> \$500,345 39   |
| Transportation, Roadway, Dum-<br>page, Renewal Fund, and<br>all charges..... | 189,608 58           | 177,207 32           |
| Net profit for the month.....                                                | \$310,622 66         | \$328,138 07         |
| "    for previous eight<br>months.....                                       | 1,434,578 20         | 947,483 02           |
| Total net profit for nine<br>months.....                                     | <hr/> \$1,745,200 86 | <hr/> \$1,275,621 99 |

LOUISVILLE & NASHVILLE R. R.—The Louisville & Nashville Railroad has been completed to Shepherdsville, and cars are now running to that point.

MEMPHIS AND OHIO RAILROAD.—At a meeting of the Stockholders of this road, in this city, on Monday last, the following gentlemen were elected Directors for the ensuing year: Robertson Topp, John Pope, F. Titus, A. Woodruff, W. B. Miller, Q. C. Atkinson, R. C. Brinkley, S. P. Walker, Thos. C. Crenshaw, Geo. T. Taylor, Jas. B. Stanton, Wm. V. Loving, B. C. Brown, James B. Lamb and Samuel Williams had been previously appointed Directors on the part of the State.

The Report of the President, which was laid before the Directors and will soon be published, showed a very gratifying state of progress. Twenty-six miles are now completed and in operation. A passenger train will commence running in two or three weeks from this time.—*Memphis Eagle*.

**LEXINGTON AND BIG SANDY RAILROAD.**—The Kentucky Whig says: "Judge Goodloe has decided that the city of Lexington is bound for the payment of the tax voted by her citizens, for the construction of the Big Sandy Railroad. The probabilities are that no further effort will be made to resist its payment, by taking it to the Court of Appeals."

| SILVER.                |         |       |  |
|------------------------|---------|-------|--|
| American Dollars.....  | 1 03½ @ | 1 04  |  |
| American Halves.....   | 1 03½ @ | 1 04  |  |
| Spanish Dollars.....   | 1 14 @  | 1 14  |  |
| Spanish Quarters.....  | 1 00 @  | 1 01  |  |
| Mexican Dollars.....   | 1 05½ @ | 1 05½ |  |
| Five Franc pieces..... | 97 @    | 97½   |  |

\* The standard English value attributed to the Sovereign is \$4.44, in London. This with exchange added, say from 9½ to 11 per cent., gives the American value of the English coin.

**CINCINNATI STOCK SALES,**  
AT THE STOCK BOARD,  
MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON & HOLMES.

For the week ending October 17, 1855.

|         |                                                                                     |                    |
|---------|-------------------------------------------------------------------------------------|--------------------|
| \$5,000 | Coving. & Lex. R. R. Co., 7 per cent. 2d Mort. Bonds.....                           | 66                 |
| 4,000   | Coving. & Lex. R. R. Co., 10 per cent. Income Bonds.....                            | 67 $\frac{1}{2}$   |
| 2,000   | Cin., Wil. & Zanes. R. R. Co., 7 per cent. 2d Mort. Bonds.....                      | 68                 |
| 5,000   | City of Maysville, 6 per cent. B'ds, coupons payable semi-annually in New York..... | 40 (& int.)        |
| 1,000   | Little Miami R. R. Co., 6 per cent. Bonds, 1st Mort.....                            | 80 "               |
| 800     | Little Miami R. R. Co., Div. Scrip                                                  | 90                 |
| 365     | Indianapolis & Cin. R. R. Co., 7 per cent. Dividend Bonds.....                      | 70 "               |
| 2,000   | Marietta & Cin. R. R. Co., 7 per cent. Income Bonds.....                            | 60                 |
| 100     | Shares Cin. & Chicago R. R.....                                                     | 124 (& int.)       |
| 267     | " " " " " "                                                                         | 12 $\frac{1}{2}$ " |
| 50      | " Colum. & Xenia.....                                                               | 91                 |
| 23      | " " " " " "                                                                         | 92                 |
| 106     | Peru & Indianapolis R. R.....                                                       | 25                 |
| 35      | " " " " " "                                                                         | 23                 |
| 15      | " " " " " "                                                                         | 26 $\frac{1}{2}$   |
| 50      | Covington & Lexing. R. R.....                                                       | 26 "               |
| 70      | " " " " " "                                                                         | 31                 |
| 20      | " " " " " "                                                                         | 32 $\frac{1}{2}$   |
| 10      | " " " " " "                                                                         | 33                 |
| 180     | " " " " " "                                                                         | 8                  |
| 160     | " " " " " "                                                                         | 96                 |
| 10      | " " " " " "                                                                         | 74                 |
| 40      | " " " " " "                                                                         | 17                 |
| 332     | " " " " " "                                                                         | 6 $\frac{1}{2}$ "  |
| 300     | " " " " " "                                                                         | 6 $\frac{1}{2}$ "  |
| 267     | " " " " " "                                                                         | 6 $\frac{1}{2}$ "  |
| 160     | " " " " " "                                                                         | 6 $\frac{1}{2}$ "  |
| 150     | " " " " " "                                                                         | 7 $\frac{1}{2}$ "  |
| 200     | " " " " " "                                                                         | 8 "                |

LONDON QUOTATIONS  
OF  
AMERICAN STOCKS AND BONDS  
FROM THE WEEKLY PRICE CURRENT

OF  
E. F. SATTERTHWAITE STOCK BROKER LON

E. F. SATERNAWATTE, STOCK BROKER, LON.  
Sept. 21, 1855.

|                                                                |     |   |     |
|----------------------------------------------------------------|-----|---|-----|
| Belvidere, Bel. guar. 1st mort., conv. . . . .                 | —   | @ | 87  |
| Chicago & Rock Island, Mort., conv. 1858, . . . . .            | —   | " | 80  |
| Cin. Ham & Dayton, 2d mort., . . . . .                         | 85  | " | 81  |
| Erie, 3d Mortgage, 1883, . . . . .                             | 85  | " | 87  |
| Sinking Fund, . . . . .                                        | 80  | " | 81  |
| Galea & Chicago, . . . . .                                     | —   | " | 83  |
| Grand Trunk (Canada) Debenture, . . . . .                      | 91  | " | 97  |
| Great Western " conv., . . . . .                               | 116 | " | 119 |
| " " non-conv., . . . . .                                       | 107 | " | 108 |
| Illinois Central, 1st Mort., 7's, . . . . .                    | 74  | " | 76  |
| shares till Jan. 1858, . . . . .                               | 78  | " | 80  |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill.<br>Cent., . . . . . | 83  | " | —   |
| Little Miami 1st Mort., not conv. 6's, . . . . .               | —   | " | 81  |
| Marietta and Cincinnati, 1st Mort., . . . . .                  | —   | " | 82  |
| Michigan Central, conv., 8's, . . . . .                        | 91  | " | 92  |
| N. York Central. No Mort. Not conv., 81                        | 81  | " | 83  |
| " conv., . . . . .                                             | 94  | " | 96  |
| Ohio and Mississippi, 1st Mort., . . . . .                     | —   | " | —   |
| Ohio and Pennsylvania, Income 1872, . . . . .                  | 83  | " | 85  |
| Panama. No mort. conv. 1866, . . . . .                         | 98  | " | 99  |
| Pennsylvania, 1st Mort., conv., . . . . .                      | 90  | " | 91  |
| Sterling, 2d Mort., . . . . .                                  | 92  | " | 94  |
| Stenberville and Ind., 2d Mort., . . . . .                     | —   | " | —   |

The quotations given are sterling quotations. The American value is to be obtained by adding on exchange generally about 10 per cent.

| SALES AT THE NEW YORK STOCK BOARD, Oct. 12. |                          |            |
|---------------------------------------------|--------------------------|------------|
| \$2,000                                     | Mississippi              | 87 1/2     |
| 15,000                                      | Virginia 6's             | 96 1/4     |
| 1,000                                       | Harlem 1st mort.         | 89 3/4     |
| 13,000                                      | erie bonds '83           | 94         |
| 20,000                                      | " Bonds of '75           | 5d 94      |
| 1,000                                       | Hudson River 1st Mort.   | b3 87 1/2  |
| 2,000                                       | Ill. Cent. Bonds.        | 100% 79    |
| 1,000                                       | Chic. and R. 1.          | s3 79      |
| 20                                          | Shares Del. & Hud.       | 93 3/4 125 |
| 50                                          | " Mich. Cent.            | 97         |
| 100                                         | " Mich. So. and No. Ind. | 98 1/4     |
| 40                                          | " Galena and Chicago     | 121 1/4    |
| 100                                         | " Erie R. R.             | s3 55      |
| 650                                         | " Clev. and Tol.         | 81 1/4     |

CLEVELAND AND PITTSBURGH RAILROAD. — The Earnings of the Cleveland & Pittsburgh R. R. for the month of September, 1855, were as follows :

|                            |             |
|----------------------------|-------------|
| Freight.....               | \$43,333 00 |
| Passengers.....            | 18 246 53   |
| Miscellaneous Sources..... | 2,433 10    |
|                            | <hr/>       |
|                            | \$64,012 63 |
| September, 1854.....       | 42,984 24   |
|                            | <hr/>       |
| Increase.....              | \$21,029 34 |
| Nearly 49 per cent.        |             |

GALENA AND CHICAGO UNION RAILROAD.—The following are the earnings of this road for the month of September, 1855 and 1854:

|                 | 1855.        | 1854.        | Increase.    |
|-----------------|--------------|--------------|--------------|
| Freight.....    | \$177,111.00 | \$90,235.63  | \$86,875.37  |
| Passengers..... | 79,572.28    | 58,389.52    | 21,182.76    |
| Mails, etc..... | 2,963.05     | 1,444.89     | 1,518.16     |
| Total.....      | \$259,646.33 | \$149,770.04 | \$109,876.29 |

CHICAGO ROCK ISLAND RAILROAD COMPANY.—CASHIER'S OFFICE, Chicago, Oct. 3, 1855.—Earnings of the Chicago and Rock Island Railroad for the month of September, 1855:

|                                    |              |
|------------------------------------|--------------|
| For transportation of Persons..... | \$63,957.45  |
| “ “ “ Property.....                | 76,032.62    |
| “ “ “ Mails.....                   | 1,800.00     |
| Total.....                         | \$141,790.07 |

J. L. KILWOOD, Cashier

J. L. ELWOOD, Cashier.

CHICAGO AND BURLINGTON RAILROAD LINE.—TREASURER'S OFFICE, Chicago, Oct. 3, 1855.—The earnings of this line for the month of September, 1855, are as follows:

|                                              |                     |
|----------------------------------------------|---------------------|
| For the transportation of Property.....      | \$119,390.79        |
| For the transportation of Passengers.....    | 45,062.70           |
| For the transportation of U. States Mail.... | 1,389.29            |
| <b>Total.....</b>                            | <b>\$165,842.78</b> |



### CENTRAL OHIO R. R.—KIRKWOOD EXTENSION.

The *Wheeling Times and Gazette* of Oct 11th thus notices a recent proposition to complete the extension of the Central Ohio Railroad to a point opposite that City.

Most of our readers, we presume, are by this time aware that the object of the visit of a portion of directors of the Central Ohio R. R. to this city on Friday last, had reference to the extension of the said road to a point opposite this city.

A committee of our citizens held a conference on Saturday with the directors, and conjointly they drew up an agreement which is to be submitted to the board of Directors of the Central road and the Council of the city of Wheeling for ratification.

The subject was bro't before a special meeting of the Council on Saturday night but was postponed until next Friday night, when it will come up for final action. There seems to be no doubt on the minds of any but that the Council will accede to the propositions of the Central road named in the said agreement. The Board of Directors of the Central road will hold a meeting to day, and we understand but two of the number have expressed themselves as unfavorable to the proposed scheme. The leading propositions of the agreement, as reported by the joint committees, are that the Central Ohio Railroad shall abandon the Bellair and Benwood connection; that they are to permit no connection of any kind at any point south of the corporate limits of the city of Wheeling with the Baltimore & Ohio Railroad without the consent of the Council of this city.

That until the railroad bridge is finished across the Ohio river, which bridge is to be located at such a point between the upper ends of Zanes Island and the lower end of Bogg's Island as the directors of the Central road may determine on, the transportation between the two roads shall be carried on at the city of Wheeling and a point on the opposite side of the Ohio river, not south of its corporate limits; except, however, that the company shall be permitted to transport cattle and other live stock at any place they may deem most convenient. Moreover that the Central road shall not make any connection east of the Ohio river with any other railroad company at any point not within the corporate limits of the city of Wheeling. The company also agrees not to permit any other railroad to use or pass over its bridge for the purpose of making a connection west of the Ohio river. In consideration of these concessions on the part of the Central Ohio company the city of Wheeling is required to procure subscriptions to the corporate stock of the said company to the amount of fifty thousand dollars. Twenty-five thousand of this to be paid in cash and the residue in the outstanding notes or obligations of the company now due or maturing within four months. The money to be paid as it may be wanted to complete the road, the obligations and notes, however, not to be delivered until the road is in running order to Kirkwood. This is, as we understand it, a general outline of the agreement as presented to the Council.

All who look to the true interest of the city must regard it a most advantageous scheme. We have yet to converse with the first man who is opposed to it. It is true we are already heavily taxed, and that this fifty thousand dollars will add an additional load to that under which we already groan; but when we consider that all we have been fighting for years will be now accomplished, that whether our injunction case, now before the Court of Appeals, is successful or not, its object is attained, and that, too, in a peaceable and amicable manner. We think it would be folly of the worst kind for us to hesitate a moment in accepting the propositions of the Central road. The agreement is carefully drawn up, and there is not, in our opinion, a single flaw by which the company, if they desired, could avoid doing all they promise and all we desire.

**IMPROVEMENTS IN HICKMAN, KY.**—The *Hickman Argus* notices the erection of several large buildings in that town.

**PHILADELPHIA, FORT WAYNE AND PLATTE RIVER AIR LINE RAILROAD.**—This is the chartered title, under the laws of Iowa, of a company, who, with two other companies, chartered by the State of Illinois and of Indiana, are building an air line road from Fort Wayne, Ind., to Council Bluffs, on the Missouri river—distance 580 miles. Of this distance, 129 miles, are in the State of Indiana, 178 miles in Illinois, and 273 miles in Iowa.

At the first public appearance of this project, under the charge Col. Samuel R. Curtis, Chief Engineer, we noted the movements made in its favor in December, 1853.

We are now informed by Erastus Hurd, present Engineer, that divisions of this road in Indiana and Illinois, are progressing in construction, that on the 8th of September, 1855, the consolidated company made a contract with Mr. Levi Chase to build the eastern division of this road in Iowa, starting at the Mississippi river, opposite New Boston, and extending through Wapello, on the Iowa river, 42 miles, that it is intended to put the road under contract soon to Oskaloosa, 88 miles, that this road in Iowa passes through a very rich and thickly settled portion of this rapidly prospering State, and that the citizens are taking hold of the enterprise with a determined energy that must ensure the vigorous progress of the work.

The main terms of the contract with Mr Chase are that the road shall be completed in running order within two years:—price \$25,000 per mile.

**THE CENSUS OF BOSTON.**—The census of Boston has just been completed. The figures for the years named, stand as follows:

|                 | 1855.   | 1850.   |
|-----------------|---------|---------|
| Population..... | 162,629 | 133,788 |
| Males.....      | 78,132  | 66,072  |
| Females.....    | 83,497  | 72,716  |

It is stated, that the increase has been mainly on the part of the foreign population, and the children of foreigners. The following figures exhibits the population of Boston at different periods:

|           |         |          |                        |
|-----------|---------|----------|------------------------|
| 1820..... | 43,298  |          |                        |
| 1825..... | 58,277  | increase | 14,979 per cent. 34.59 |
| 1830..... | 61,392  | "        | 3,115 " 05.34          |
| 1835..... | 78,603  | "        | 17,211 " 28.03         |
| 1840..... | 85,000  | "        | 6,397 " 08.13          |
| 1845..... | 114,366 | "        | 29,366 " 34.54         |
| 1850..... | 138,788 | "        | 24,422 " 21.35         |
| 1855..... | 162,629 | "        | 23,841 " 17.10         |

The enumeration for the present year, 1855, includes "Washington Village," formerly a part of Dorchester, but annexed to Boston the present year. This section contains 1,319 inhabitants, which, deducted from 162,629, makes the actual increase of Boston for the last five years, 22,522, or 16.22 per cent. It will be perceived that the ratio of increase for the last five years is a little less than for the five or ten preceding years.

**POPULATION OF WISCONSIN.**—We annex a table of the population at different periods, with the single remark that Wisconsin is gaining faster, in wealth and numbers, now, than at almost any previous period of her history:

|           | POPULATION OF WISCONSIN. |
|-----------|--------------------------|
| 1840..... | 30,945                   |
| 1845..... | 155,277                  |
| 1850..... | 305,391                  |
| 1855..... | 552,109                  |

**NEW ALBANY AND SANDUSKY RAILROAD.**—The following gentlemen were lately elected Directors of the Indiana portion of the New Albany and Sandusky Railroad, for the ensuing year. All were members of the old board:

Jas. Montgomery, J. S. Davis, J. S. McDonald, Thos. L. Smith, Wm. M. Weir, Wm. B. Lent, B. F. Devol, Jas. Pierce, V. A. Pepin, J. B. Windstandley, James C. Moody, Jas. A. Moffitt, P. M. Kent.

The whole number of applications made for bounty land, under the law of March, have been upwards of two hundred and seventeen thousand, and the number of warrants issued thirty-four thousand three hundred. During last month nearly eleven thousand were issued.

Forty head of imported cattle arrived recently at Philadelphia for Kentucky and New York farmers.

**THE SOUTHERN WISCONSIN RAILROAD.**—Our Common Council last evening, by a unanimous vote, passed an Ordinance for the issue of \$300,000 of our City Bonds, in aid of the construction of the Southern Wisconsin Railroad, from Janesville to the Mississippi, opposite Dubuque. We understand that the work will be immediately put under contract as far as Monroe, Green County, and pushed ahead with all possible vigor. The Southern Wisconsin Road will prove not only an important feeder to the Eastern Division of the Milwaukee & Mississippi Railroad, but a very valuable avenue of trade to our City and a strong connecting link between Milwaukee, Western Wisconsin and Iowa. Our Council has done wisely to issue the bonds asked for, in aid of this promising enterprise, and we heartily congratulate our fellow-citizens, here and throughout Southern Wisconsin, upon the gratifying prospects of its immediate commencement and speedy completion.—*Milwaukee Sentinel.*

### RAILROAD MAP OF THE UNITED STATES.

**RAILROAD Map of the United States, to be published, Oct. 15, 1855.**

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co.. It is a fine map, printed on good paper, and is offered in four different shapes.

|                                                          |        |
|----------------------------------------------------------|--------|
| Plain Lithograph.....                                    | \$0.50 |
| Colored Boundaries.....                                  | 0.75   |
| Backed with muslin and varnished ready for moulding..... | 1.50   |
| Mounted.....                                             | 2.00   |

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers. Railroad Companies wishing a large number to circulate with reports, or to supply their various offices, will be allowed a corresponding discount.

Orders addressed to  
T. WRIGHTSON & CO.,  
Publishers R. R. Record,  
167 Walnut St.,  
Cincinnati, Ohio.

### RAILROAD IRON.

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via, Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired.

WALKER & BERRY, Quebec & Kingston, Canada.  
BERRY & WALKER, Liverpool, England.

Kingston, C. W., Sept. 15, 1855.

**MIDDLETON, WALLACE & CO.,**  
**LITHOGRAPHERS & ENGRAVERS,**

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and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**

**Railroad Depots and Station Houses,**

at current rates. **L. A. OSTROM,**  
Aug. 16. No. 6 West Third Street, Cincinnati.

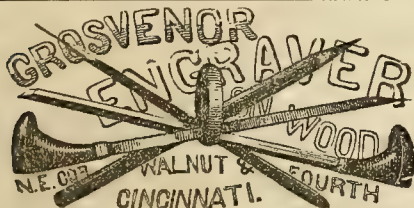
**Railroad Iron,**

**1,500 TONS,** now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.,** 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

**NOTICE TO CONTRACTORS.**

**PROPOSALS** will be received at the office of the Henderson and Nashville Railroad company in Madisonville, Kentucky, until the first Monday in October next, for the grubbing, clearing, grading and masonry of said road, or any part thereof. The work will be divided into convenient sections to suit bidders, of not less than half a mile. Proposals will be opened at the city of Henderson, on the said first Monday in October, at which time and place the Board of Directors will meet for that purpose.

**E. G. SEBREE, Prest.**  
**CHAS. SEYMOUR, Chief Engineer.**  
August, 18th, 1855. 5w



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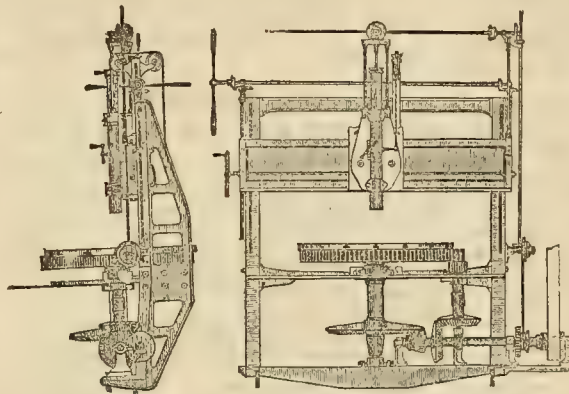
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From 40 inches, to 12 feet.

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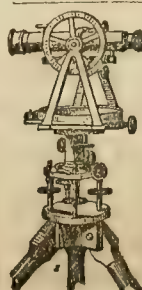
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Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS, President.**

Also, for sale, two Twenty Horse Power Stationary Engines.  
Aug. 9 4t

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AND

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Aug. 9 1y

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**NOTICE.**—The Subscriber having become proprietor of **MYERS' PATENT CYLINDER CAR**, for a considerable portion of Western territory, including the State of Ohio, offers the same to **Rail Road Companies** on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

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Also, McGowan's Patent Ball Valve Pump, designed for **Hot Liquids**, **Hot Oils**, **Molasses**, &c. **Hose Couplings**, **Lead**, **Copper** and **Gas Pipe** furnished at the lowest market prices.

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**TO CONTRACTORS.**

**PROPOSALS** will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 16th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Granger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly **CASH**.

**R. L. OWEN**, Chief Engineer.

Aug. 2, 1855.

aug 2 12w

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Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

**P. DUDLEY,**

President of the Board.

July 26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted), each way, will run on this Road, between **COLUMBUS** and **URBANA**. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

**A. G. CONOVER**, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

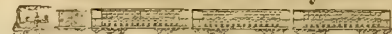
TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

**S. HUESTIS** Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street Depot.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis, St. Louis, Chicago, Galena & Rock Island,**

BY THE WAY OF THE

**CINCINNATI, HAMILTON & DAYTON, AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; returning by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to **W. A. LATHAM**, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

**M. L. MITCHELL**, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

**WM. H. SMITH**, Conductor.

**D. M. MORROW**, Superintendent

Feb. 8-ly



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**

Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,

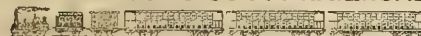
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

W. M. G. HARRISON, President, JOHN H. DONE, Mast. of Transportation, Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M. and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co.

S. S. POST, Chief Engineer and Superintendent.

Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, No. 2 Burnet House, only.

W. S. BABCOCK, Ag't Cin. and St. Louis Omnibus Line, Office No. 2 Burnet House.

## STEREOTYPE FOUNDRY, AND AGENCY OF L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of

**STEREOTYPING,** including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,  
169 1-3 Vine Street, Cincinnati, O.

## 1855. New Arrangement, 1855 COMMENCING MONDAY, JULY 16.



### LITTLE MIAMI RAILROAD, VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAID WITH HEAVY TIRON.

Wheeling Passengers Dine at Zanesville.

Pittsburg Passengers Dine at Crestline.

Dunkirk and Buffalo Passengers Dine at Cleveland.

Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The Roads" by this route are in very fine order," laid with heavy Tiron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¾ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30¾ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburgh in.....   | 14 "      |
| To Philadelphia in..... | 30¾ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

**FIVE DAILY TRAINS.**

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami) Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

ISAAC W. HUNTER, Superintendent.  
A. C. BARRETT, Gen. Frt. Ag't.  
Indianapolis, October 1, 1855.

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demossville, Butler, Irving, Falmouth, Cultenville, Boyd's, Berry's, Robinson's, Garrett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M.; stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.25 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

|                             |        |
|-----------------------------|--------|
| Covington to Lexington..... | \$3 00 |
| Covington to Paris.....     | 2 40   |
| Covington to Cynthia.....   | 2 00   |

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices  
oct. 17\* CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and Lafayette for Chicago both morning and evening Trains, and at Chicago for South, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE, Agent.

Cincinnati, June 12, 1855.

**W. G. ATKINSON,**  
Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

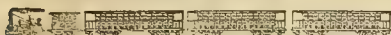
RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared.  
mail-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNYS &amp; PECK,

je.8-1f

Louisville, Ky.

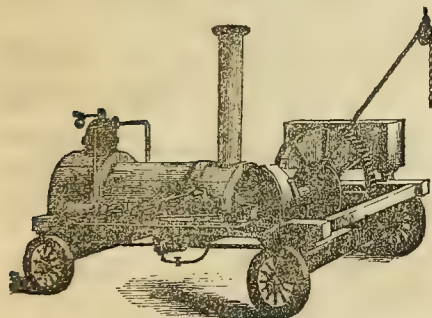
**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch

RICHARD NORRIS &amp; SON.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

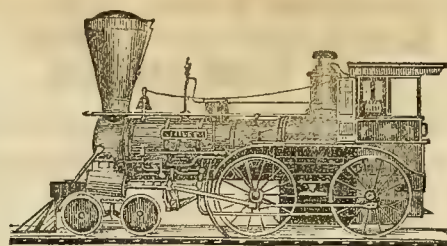
They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies.

COMMITTEE—MESSRS. DURAND, FULTON and TILTON.

Manufactured by

J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
feb. 13 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs over tenth part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in Axle Boxes are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846. Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, JR.,**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th, 1853. mar1-f

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

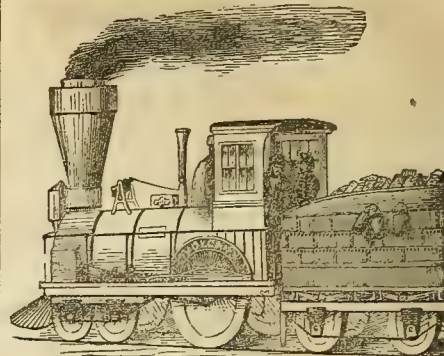
**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. jyl3.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.****Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

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Late of the firm of T. &amp; R. Wason, Springfield, Massachusetts.

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**Wheels & Axles, Jaws, Boxes, and Casting Fit****Wrought Nuts, Bolts, & Washers,**

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From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

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Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

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Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport &amp; Bridges, Car Manufacturers,

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

foc6

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

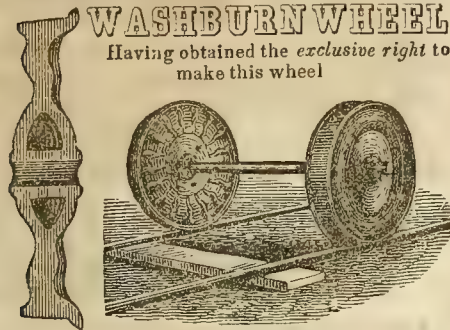
Dayton, Jan 24th. 1852.

Jan 25-1



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

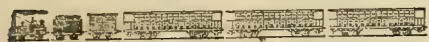


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16<sup>th</sup> \* **JOSEPH DAVENPORT.**

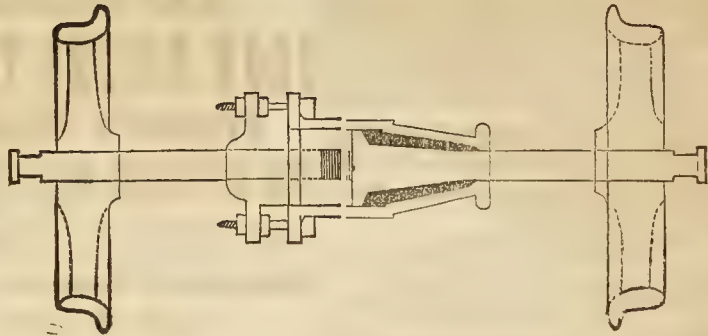
### S. C. THOMSON & CO.,

MANUFACTURERS OF

## PATENT PAD LOCKS,

For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
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n. 12<sup>th</sup> NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of the valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**

Christiana, Pa.

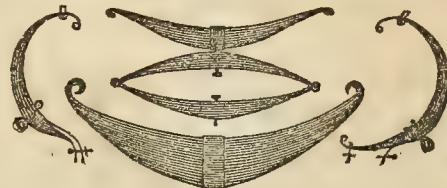
Or, to **CHRISTIAN UNBLE,**

Gap, Pa.

July 10<sup>th</sup>

## M<sup>C</sup>DANIEL & HORNER,

LOCO-  
MOTIVE



AND CAR  
SPRING

## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

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All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

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**A. C. GRAY,** Prest. New Castle Manuf. Co.

**U. WELLS,** R. R. Car Manuf. Petersburg, Va.

**I. R. TRIMBLE,** Supt. Philad. R.R. Co.

May 19.

**M. B. MILLEN,** Gen. Supt. C. R. R. Savannah, Ga.

**EMERSON FOOTE,** Supt. M. & W. R. R. Macon, Ga.

**THOMAS DOUGHERTY,** Master Mach. do.

**THOS. SHARP,** Supt. R. F. & P. R. R. Richmond, Va.

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PATENT

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WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec 27

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### REFERENCES.

**Richard Norris & Son,** Locomotive Builders, Philad'a.

**Wm. D. Lewis,** Esq. Pres't Catawissa R. R. Co. "

**Charles H. Fisher,** Esq. "

**John Caldwell,** Esq. Pres't S. C. R. R. Co. Charleston, S. C.

**Pinckney Huger,** Esq. Pres't. N. E. R. R. Co. "

Oct. 13-11.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—DEAR SIR:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

HOLLOW SLAB WATER TUYERES,

For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES,

For Railway Wheels. Railway Axles and Springs,  
SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

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Essen Rhenish Prussia.

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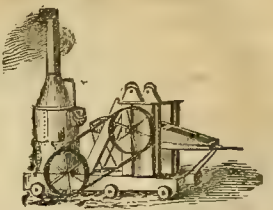
THOMAS PROSSER & SON,

28

PLATT STREET, New York!

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



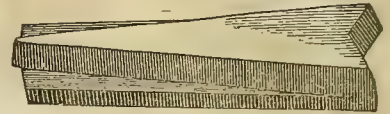
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
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MAPS OF EVERY DESCRIPTION.



# Railroad Record.

E. D. MANSFIELD, - - - - Editor.

W. WRIGHTSON, } Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING,.....OCTOBER 25, 1855.

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### RAILROAD MAP.

By a miscalculation on the part of the engraver, this map is not yet quite ready. Hence, our friends who have written on the subject, will be disappointed in not having them forwarded as soon as they were justly entitled to expect. Please remain quiet gentlemen, we will attend to your orders as soon as they can be procured from the engraver's hands. Probably about the first of the month.

VOL. III.—No. 35.

### THE DIVERSION OF LABOR PRODUCED BY RAILROADS.

This is a very important subject. It is one of the elements in the great change rapidly going on, by which the labor of the country is diverted from agriculture to the arts. This change, while it is exceedingly advantageous to the arts, and to the apparent progress of civilization, may, in the end, prove disastrous to other interests. In the meanwhile, let us see what proportion of labor has actually been absorbed by railways.

We have some data for this purpose in the number of persons employed on the railways of Great Britain. The following is the result for the last two years, viz:

|              | Whole No.   | Per Mile. |
|--------------|-------------|-----------|
| In 1853..... | 79,212..... | 10.7      |
| In 1854..... | 90,514..... | 11.6      |

With the increase of traffic, the number of men employed increase also; so that it appears that the proportion of men employed on railways is constantly increasing. Let us now look to the railway employment of men in the United States. We have not exact data for this calculation, and we have no doubt, that the number is *proportionally* much less than in Great Britain, on account of the less traffic per mile; but, then, we have nearly three times the number of miles open, so that the number of railway men in the United States is, no doubt, more.

In examining the question of railway employees on some roads with which we are acquainted, we suppose that (independent of construction,) six persons per mile would be a fair average. The whole number of miles of railway now in operation, cannot be less than 23,000. This will give 138,000 men employed on railways. If we add those engaged in construction, the aggregate must amount to 160,000. Suppose we put it at 150,000. Let it be recollected that there are no boys employed on railways. These are all able-bodied men of full age. Now, the proportion of this class of men to the whole community is 1 to 4; so that four times the number employed, viz: 600,000 is the whole population dependent on railway employment. That is *one-fortieth* of the whole nation. When we consider, that it is only about twenty years since railways came into use, this amount of employment furnished by them, looks enormous.

In fact it is; and when we look at a similar diversion of labor by various other arts, it becomes a subject of interest and importance to see where all this tends to. There can be no doubt at all, that this *diversion* of labor, from the direct production of food, is one of the main causes in the increased price of grain. And, there is just as little doubt, that this change will go on, till a positive *scarcity* of bread drives men back to their primitive employment of agriculture.

To illustrate this, suppose this 150,000 men were employed in the cultivation of corn.

One man can plough and tend twenty acres of Indian corn, and each acre will average forty bushels. Each man, then, would average eight hundred bushels of corn, and the whole number would produce *one hundred and twenty millions of bushels of corn!* If the process of diverting labor from the production of food goes on, there will come a time, and that soon, when that portion of society employed in agriculture cannot produce enough to feed the whole; when scarcity and high prices will compel men to revert again to the cultivation of the ground.

We shall not, however, discuss that point here; but refer one moment to the immense absorption of labor in this country by railways alone. In a few years this country will have four times as many miles of railway as it has now, or over 80,000 miles; and there will be employed on them 600,000 able-bodied men, which is a much less proportion, than is employed in England. This will make a population of 2,500,000 persons! This result will probably occur in less than half a century from the first introduction of them; and at that time, *one-twentieth* part of the whole population of the country will be employed on railways. This will be a most extraordinary result, illustrating the rapidity and power of these social revolutions produced by the invention of new arts.

It is undoubtedly true, that the arts confer great blessings; and as true, that among the modern arts, none are equal to the railway in utility. It has facilitated commerce in a wonderful degree. It brings nations together, and harmonizes the whole family of man. But, while this is true, we should note other changes it is producing in the economy of society. The absorption of labor and of capital in railways, is a remarkable fact, and one which is producing remarkable effects. In this country a large share of the wealth of the country is absorbed in railways, and in ten years we shall probably have a *thousand millions of dollars in railways*. This is nearly all, however, an investment of profits. But very little capital has been taken from other branches of business. But with *labor* it is different. Men who would otherwise have engaged in the cultivation of fields, and produce grain, have been diverted in great numbers to the new arts of locomotion, and as the absorption in the arts was already too great, the supply of bread, (*proportionally*), is deficient.

PHOTOGRAPHY IN THE CRIMEA.—Roger Fenton, an English artist, has taken over 300 photograph views of persons, scenes and transactions in the Crimea, illustrative of life in that region. They are now on exhibition in London, and are to be published under the patronage of Victoria and Napoleon.



# A COMMERCIAL ERROR IN GRAIN STATISTICS.

In *Hunts Merchant's Magazine* for October (a high authority,) the writer of the *Commercial Chronicle and Review*, speaking of the wheat crop, says:

"In the far West and North-West, the yield is enormous; and Indiana, Illinois, Iowa and Wisconsin, the last three especially, have raised wheat enough to feed the whole country, with a surplus to spare."

This is one of those wholesale guesses which should never come from a statistical writer. It is, by such statements, that the merchants of the country are frequently misled. The facts are these. The crop of 1855 is, we suppose, better than any one since 1850; and in addition to this, by the natural growth of population, a much larger extent of ground has been placed under cultivation. But, with this all allowed to the utmost extent, it is not possible to suppose that, in six years, (the space from the crop of 1849, in the census, and that of 1855,) there could be an increased production of more than 60 per cent., or ten per cent. per annum.

Let us now see what that will give these four States, and what amount the white people of the United States consume. The following is a table of the production of Indiana, Illinois, Iowa and Wisconsin, the States enumerated above, in 1850, and their production in 1855, with 60 per cent. added:

| States.        | Bushels Wheat produced in 1850. | Bushels Wheat produced in 1855. |
|----------------|---------------------------------|---------------------------------|
| Indiana.....   | 6,214,458.....                  | 9,942,858                       |
| Illinois.....  | 9,414,575.....                  | 15,063,320                      |
| Iowa.....      | 1,530,581.....                  | 2,448,929                       |
| Wisconsin..... | 4,246,131.....                  | 6,857,809                       |
| Aggregate..... | 21,445,745.....                 | 34,262,907                      |

It is possible Iowa, a young state, may have produced more than is above stated; but no well informed person will give more to the others, and the probability is, they have produced less.

But, what is the consumption of the United States? There are now, in this country, about twenty-two millions of white, and the least allowance of wheat, which political economists have made, is five bushels to each person. The amount of wheat required in the United States for food is 110,000,000 bushels, and for seed, at least 10,000,000. The amount of wheat consumed in the United States in one year is 120,000,000, so that the production of Indiana, Illinois, Iowa, and Wisconsin, is not one-third of what is necessary to feed the whole country, much less having a surplus to spare!

We should suppose the statement on which we have commented, to be a mere casual mistake, if this very error had not been reported by half the commercial writers of the country over and over again. The means of correcting it are before their eyes in the commercial reports of the western towns; yet, it is reported from year to year with a pertinacity which looks like a pre-determined error.

The United States, we beg leave to inform writers of this description, is a very large country, and contains a numerous population. The means of supply cannot be, and is not, furnished by any one section; but are diffused through all sections, and more than twenty degrees of latitude. Wheat is half the time an unprofitable culture, and, for that reason, taken in connection with the diversion of labor from agriculture by the arts, is seldom cultivated in much excess. The commercial exports of the country show, that we have seldom exported any large surplus.

## NORTH-WESTERN RAILROAD—TENNESSEE.

This is one of the few new railroads which seem to have had energy and strength enough to press forward in spite of all the difficulties and obstacles of the last two years. It promises to be successful. We have before us the Reports of the President and Engineer, for the present year.

We have already stated the general features of this road. It runs from Nashville, Tenn., in a North-Western direction to Hickman, Ky., on the Mississippi; the intention being to connect Nashville with the North-West, by the Mobile and Ohio Railroad, and likewise by the Mississippi river. For the present, the line is located from Nashville to the intersection with the Mobile and Ohio Railroad, a distance of 157 miles. The principal points, as stated by Mr. McNeale, the Engineer, are:

|                                               |              |
|-----------------------------------------------|--------------|
| Nashville to the crossing of Tenn. river..... | 80.05 miles. |
| Tennessee to Huntington.....                  | 29.25 "      |
| Huntington to Dresden.....                    | 26.66 "      |
| Dresden to Mobile and Ohio Railroad.....      | 21.04 "      |
| Aggregate.....                                | 157.75 "     |

The general features of the road are favorable to construction, and as it is situated in the mineral region of the Cumberland, and through the cotton and corn district of Western Tennessee, and will be literally without competition, there is no doubt, but that it will prove, in the end, a paying work.

On the 21st of April last, the entire work was placed under contract to Messrs. Becker & Rust of Ohio, who are required to finish thirty miles on the Eastern, and fifty miles on the Western by the 1st of October, 1857, and the whole by the 1st of October, 1859.

The construction on the Western division commenced on the fourth of July, and on the Eastern on the second of August.

The payments are so arranged, as to be within the means of the Company; and if the stockholders are prompt in payment, there is no reason the entire work should not be completed within the time specified.

The present Officers of the Company are: John A. Gardner, President; H. S. Claibourne, Secretary; Neile McNeale, Chief Engineer.

All of these gentlemen have been most energetic and persevering, in advancing the interests of the Company.

NEW YORK, Oct. 20, 1855.

MY DEAR RECORD: Since your correspondent left his comfortable chair in your sanctum, he has been in the whirl of busy life; and after dashing over nearly a thousand miles of iron road, has at length brought up quietly at the great metropolis, if indeed anything can be quiet here. New York is a fast place. It has fast people in it. They all come into the world fast and hurry fast, very fast, through it. There are no children in New York. They are too fast here to go through the progressive state of childhood, and leap at once into what is laconically denominated Young America. This is a queer compound of precocious intelligence and impudence mingled with such a degree of self-satisfied composure and sang froid, as to take from the whole much of its repulsiveness, and to render it even an amusing subject of contemplation.

New York people imagine they know everything, from the inmost secrets of the Kremlin and the latest news from the Crimea to the most petty affairs of the most petty village in the Union. And, seriously speaking, they are pretty well posted, although a little less self-esteem would often save them from shocking impositions; for there is hardly a patent rat trap or an outlandish mining speculation that does not meet with favor here, if brought out by parties who understand the peculiar genius of the people of this Babel. New York is a sort of vanity fair, where the pilgrim of life will always find enough to distract his attention and allure his thoughts. From Barnum's Museum to the Crystal Palace, every step is a succession of novelties such as can be seen nowhere else on this continent, if in the world.

The fair at the American Institute is the great novelty of the day. It is an exhibition of the skill of American artists and artisans, and is one of which our country may be proud. The present is the 27th Annual Fair, and was opened about two weeks ago. The directors of the Institute have procured for the occasion the use of the Crystal Palace, and open the Fair free to competition to every section of the Union. The show of fancy articles and curious pieces of workmanship is not so good as it was at the World's Fair, but the show of machinery and such things as compose the solid comforts and utilities, is far superior. It was supposed that the arcade used at the World's Fair for machinery, would be amply sufficient to accommodate all that would be exhibited, but the sequel shows it not half large enough. Many of the machines cannot be exhibited in operation at all, and others are so cramped for room that few can see them work.

Among the machines on exhibition, are steam engines of every variety, ordinary horizontal engines, oscillators in great number



engines with new valve movements for the quick opening and closing of the valves, the cloud engine, the ignition engine, pumping engines, pumps for mining purposes, steam pumps for fire engines, rock drills for mining and railroad purposes, planing machines, drills, lathes, morticing, tenoning and sawing machines, agricultural implements, cotton spinning, stocking knitting, weaving and sewing machines, printing presses, glass engraving machines, gas furnaces, bridge models, and a thousand others too numerous to mention.

Our friend Mr. Lane is here with his morticing machine, and is astonishing the New York mechanics with the performance of a *western* machine. It is the only one that will mortice hard wood, and that is perfectly under the control of the operator. He makes, with perfect ease, a mortice two inches wide and seven deep in the hardest oak. He is receiving orders for his Morticer from railroad superintendents for their repair shops. As a labor-saving machine, they say it is without equal in its department.

There is, also, here a model of the Moseley Tubular Wrought Iron Arched Bridge. It has attracted a good deal of attention, and is confessed to be a superior bridge for railroad purposes.

One of the most beautiful and curious things I have seen in the Fair is a portrait of Washington, woven in silk by the Jacquard Loom. There is a model of this loom on exhibition here. The portrait resembles a very fine steel engraving, and would be readily mistaken for one. The arranging of the loom to produce this fabric in its present perfect state, with every line and lineament true to life, was a work of two years, and cost *ten thousand dollars*. It was got up at the expense of the Emperor of the French. The loom now arranged will multiply the fabric without end. The loom is a curious arrangement of cords to guide the threads composing the work of the fabric, and an equal curious shuttle box for the wool.

Another of the curiosities of the exhibition is a stand of various ornaments and figures, made of artificial stone. They are made to represent brown sandstone, and are said to be as durable as the natural substance. Elaborate ornaments for buildings, which, when sculptured, cost from sixty to seventy dollars, are made by this process at a cost of less than one dollar.

Another of the curious things of the palace, is a machine for turning ornamental furniture. This is accomplished by means of a revolving upright mandril. And it is surprising with what facility this little machine will produce the most beautiful ornaments used in manufacturing our fashionable furniture.

W.

## Railroads.

### REPORT OF THE MICHIGAN SOUTHERN AND NORTHERN INDIANA R. R. COMPANY.

TO THE STOCKHOLDERS: The Michigan Southern and Northern Indiana Railroad Company is now a single corporation, formed and existing under the laws of the States of Ohio, Michigan, Indiana and Illinois. Its line of railroad extends into these four states. The last act of legislation necessary to the consolidation of the companies owning this railroad, was passed by the State of Michigan on the 13th day of February last, full legal authority therefor having previously been given by the other three states.

Immediately after the passage of the last-mentioned act, the necessary measures to carry the same, and the laws of the other states for that purpose, into effect were adopted and taken; and on the 26th of April last the articles of consolidation, by which the existing corporation was formed, were finally sanctioned and approved by the competent and unanimous vote of the stockholders of the respective corporations then represented.

This act was the desired consummation of all the legislation necessary to support and guarantee the rights of the shareholders of the several companies under which their railroads had been constructed and are in operation.

The railroad commences at a central point in the city of Chicago, and extends around the head of Lake Michigan, directly eastward to the head of Lake Erie, striking the latter at Monroe, in Michigan, and at Toledo, in the State of Ohio.

The main line of the railroad from Chicago to Toledo is 242 7-10 miles in length.

The road from Adrian to Monroe is 36 6-10 miles long. The road called the Jackson Branch, extends from the Monroe road, at a point therein, near to and east of Adrian, northerly to Jackson, forty miles. It is completed and in operation through Tecumseh, Clinton, etc., to Manchester, twenty-two (22) miles; and the construction is nearly finished to Napoleon, ten miles further.

Though this company was required by the laws of Michigan to construct this road, yet the completion of the same has been restrained by one of the courts in that state, and the work was for a while suspended. It has been resumed upon that part from Manchester to Napoleon; and as the iron and all materials are ready, it will be finished and put in use in a few weeks, leaving eight miles to be constructed.

At the last session of the Michigan legislature a very full general railroad law was passed, and under its provisions a company has been formed to construct a road from Jackson to Napoleon, a distance of eight miles.

It is the intention of this company to bring this question, as to its right to continue the road to Jackson, to a final issue, before the court of last resort; and we cannot doubt but that the decision will be favorable.

This is a valuable branch, already doing a good business; and when completed to Jackson, will add very considerably to the general business of the company.

We have a branch railroad of four miles in length, from White Pigeon to Constantine, and thence it has been extended eight miles, to Three Rivers, which is in the direction of Kalamazoo and Grand Rapids, and to which it has been proposed to extend the same by a new company.

We have also a branch railroad from the main line of the road at Baileytown, in the State of Indiana, extending north-easterly fourteen miles, to Michigan City. This road was constructed under the laws of the State of Indiana, which were passed for providing for a railroad connection between Michigan City, through the state, to the line of the State of Illinois.

This law of the State of Indiana which provides for this railroad connection between Michigan City and the Illinois State line, and under and to carry out which this road was constructed, is believed to be the only provision for a railroad from that city around the head of Lake Michigan.

We have also in process of construction a railroad from Elkhart in Indiana, on the main line, directly to Toledo, a distance of 132 miles. This is usually called the Goshen Line. The rails are laid from Toledo west about 65 miles, and the contractor is using this part of the line in finishing the same, with the residue of his work.

Ten miles of this road upon the west end, from Elkhart to Goshen, is completed and in regular use. Upon fifty miles of the western end of this road the grading was about half completed, but the contractors were unable to prosecute the work with the necessary force, and the contract was cancelled.

About the 1st of June last, this portion was again put under contract, to be completed by the 1st day of April next, and the work is in progress. The iron is provided and ready, and no effort will be spared to bring this line into use at the earliest reasonably practicable day. This line will be about thirteen miles shorter than the present road between Elkhart and Toledo. It is remarkably level, having no grade over ten feet to the mile, going eastward, and with but four curves in the whole length, and one continuous straight line of seventy miles long.

When this line shall be brought into use, the distance and the time between Chicago and Lake Erie will be essentially reduced; and the business over it may be transacted with as much facility and economy as can



result from such natural advantages, beside rendering the capital invested therein available, and which has been heretofore unproductive.

This enumeration shows that the company has in use 338 miles of railroad, and in process of construction 130 miles more, for the completion of which the iron is provided, and if the contractors shall perform their undertakings, the whole will be in use early next season. The eight miles between Jackson and Napoleon are not included in the 130 miles above. With the ownership and occupancy of such a line, and having such termini, and fully authorized by the legislature of each state through or into which the railroad extends, though we may be therewith well content, yet it is deemed proper here to say, that the charter of this company in the State of Indiana, declares that when the corporation therein provided for shall have procured the right of way for their railroad, as proposed, "they shall be seized in fee simple of the right to said land, and shall have the sole use and occupancy of the same; and no person, body politic or corporate, shall in any way interfere therewith, molest, disturb or injure any of the rights and privileges thereby granted, or that would be calculated to detract from or affect the profits of said corporation."

Another section declares that if the company shall complete the railroad within a given time, that then "no charter shall be granted to any other company to construct any other road or roads in the vicinity thereof, which would materially diminish, or interfere injuriously with the profits of said road, for ten years thereafter, without the consent of said company."

Our road was completed in good faith within the time allowed, and we have given no consent to the authorizing or constructing any interfering road. Our rights have been interfered with and our road crossed, without right or color of title, by a railroad in our vicinity, against our protest and remonstrance, and the matter is now pending in the courts of the State of Indiana, in which it is to be decided whether we shall be protected under these provisions, upon the good faith of which the shareholders of this company have expended their money and constructed their road.

Our road is also crossed in the State of Illinois, where we have the complete title to the land, and where the crossing is a naked trespass, and for which we may be bringing an ejectment, as has been lately held by the Supreme Court of that state.

This company, jointly with the Chicago and Rock Island Railroad Company, the five miles of road upon which both companies enter the city of Chicago, upon which we have lately graded and laid a track for the separate use of the company, and the other company are laying one for their use—the business of each having so increased as to require this. In like manner, these companies own, jointly, very extensive and valuable grounds in the city upon which it is proposed, and we now desire to erect suitable passenger-buildings. These are already necessary, and will very soon be so indispensable that they cannot longer be delayed without injury to the companies.

At Toledo the new depot grounds will soon be brought into use, and the whole business at that terminus transferred to them. These grounds are most eligibly situated in the Maumee river, the approach to which

will be over a swing bridge, owned and wholly controlled by the company. Here the Cleveland and Toledo Railroad unites with our road, and the ferry heretofore used by that company will no longer be required, as they have erected a substantial bridge, which is now used in prosecuting the various works.

The Wabash Valley Railroad comes on to this depot, and the Dayton and Michigan road, now in construction, will terminate here. So also the proposed railroad from Detroit to Toledo will make this its terminus. These grounds are ample, and the connection with the lake navigation offers the best facilities for the exchange of freights and travel.

A large passenger and car-house is being built by this company. It is of brick, covered with tin, and will soon be completed. It is 480 feet long and 160 feet wide, and is intended for the joint use of all the companies.

A large union freight-house, for like joint use, is to be erected.

We have erected a freight-house of brick, with tin roof, 600 feet long and 80 feet wide, with all needful fixtures, which is intended for our lake freight connection.

We are also building two grain houses, with a stationery engine between them, both of which front upon the river, and are intended to store and transfer grain in bulk to vessels. They will hold 400,000 bushels of grain.

The immense product of grain along our line renders these accommodations indispensable.

We are also building an engine-house upon these grounds which covers eighteen engines. This comprises the buildings necessary at this terminus.

Our imperfect connection with the Lake-Shore railroad, by means of the ferry, has been often a source of delay, and always of embarrassment. The increase of grain transportation has been so great, that we have been compelled to resort to most of the grain-houses in Toledo, and in times of active business we have required so much room there as to be a source of inconvenience both to the town and the company. All this will soon be relieved.

The company own four steamboats on Lake Erie, three of which run in a line between Toledo and Buffalo, and one between the former and Dunkirk. A new boat is to be built the ensuing winter, in the place of the Empire State, of the Buffalo line, using her engine, and which will be ready to take her place in the line early next season.

Our business and position require these boats as a part of and in connection with our line. Two of them are first-class boats, and the new one to be added to the Buffalo line will be of like character, and these, when the Goshen line is completed, will give us great advantage in the passage between Buffalo and Chicago. It is believed that no other line can compete, in time and comfort, with this, where the passenger seeks a passage upon the lakes as a part of his line of travel.

By the connection at Toledo with the Cleveland and Toledo railroad, and the Lake Shore road at Cleveland, we have a direct connection with New-York, by the Erie railroad from Dunkirk, and by the New-York Central and the Erie, also from Buffalo.

We have direct connections with Philadelphia, Baltimore, Pittsburgh, Cincinnati, &c.

From Cleveland to Blairsville a road is in progress, to be completed next year, called the Mahoning railroad, which is of the same

gauge as our road and the northern division of the Cleveland and Toledo road. By this line a nearer route will be opened from Cleveland to New-York than any existing line, and having a uniform gauge with our road. This connection will be over the Pennsylvania railroad and by way of Eaton upon the Delaware river. The saving of distance over this line, as compared with the existing lines, will be about 70 miles less than by the Erie, and about 90 miles less than by the New-York Central.

When the Sunbury road shall be completed as far West as Ridgeway, in Pennsylvania, and the Venango from that point about 120 miles west to Warren, in the State of Ohio, there will be opened the shortest possible line from Chicago to the city of New York. It will so essentially reduce the distance as to be very important.

All these connections are of uniform gauge, and from Cleveland west over the northern division of the Cleveland and Toledo road, over our road to Chicago, and the Rock Island railroad, with its bridge across the Mississippi, and the extended and connecting line through Iowa, progressing westward, is offered the only unbroken gauge from New York to the Mississippi.

There is no point in the West where there is such a concentration of travel and business as at Chicago. In addition to the well established railroads to the West, the north-west, and the south-west of that city, a railroad has been opened to Milwaukee, and the Chicago, St. Paul and Fond du Lac railroad company have also just opened fifty miles of their road to the north-west, which will be soon extended to the Mississippi, at Prairie du Chien, thus bringing the trade and travel of the upper part of that river direct to Chicago.

We cannot doubt, from all these connections, that the rapid development of the Western country will continue to show the great value of our direct line across the peninsula of Michigan as a channel of trade and travel.

During the past season the whole line of the railroad in use has been improved. In the original construction of the road, stone for culverts, &c., could not be obtained. A large number of the best arch and square culverts, of good masonry, have been lately made in place of wood structures, and solid embankments over them in place of trestle work. These culverts are from 130 feet in length down to 68 feet. The stone has been drawn from Chicago, and in some instances has been transported over 200 miles upon our road for this purpose. The embankments have been widened and strengthened, the ballasting has been increased, additional fences erected, and the general aspect of the road and its capacity for business very much improved and enlarged.

The outfit or rolling stock of the company is in good condition, and consists of the following property.

74 locomotive engines, most of which are of first-class and in good order.

81 first class passenger cars.

38 second class and emigrant cars.

7 baggage and mail cars.

18 baggage cars.

722 freight, covered, platform and cattle cars.

145 gravel and dump cars.

All these, except the last, are eight-wheel cars.

In the construction of the road, and as the work advanced from time to time, it became necessary to make several issues of bonds,



some of which were secured by a mortgage upon one part of the road and some upon another. Some were issued by the Michigan Southern railroad company, and some by the Northern Indiana railroad company, and there came to be thus seven sets of bonds of these companies, amounting in the aggregate to the sum of \$5,500,000.

When the consolidation of these companies was effected, and their individual or separate existence merged in the present corporation, it was deemed desirable to consolidate these securities, and to substitute therefor the obligation of this company, which is, of course, bound to meet them.

In looking forward, it was found that an additional sum of money would be required to complete the works in progress, and to place the road upon a proper basis. It was also obvious that the business would soon require a double track from Elkhart to Chicago, a distance of 100 miles. Desiring to place the bond debt against the company upon the strongest basis as to security, to provide a sinking fund for its redemption, to secure every part of the debt alike, and to provide the means for the completion of the work, and for the double track above mentioned, the directors determined as follows: To make a mortgage upon the whole line of the railroad, with its appurtenances, to secure the bonds to be thereafter mentioned, in exchange for the present outstanding bonds of the company, as they may, from time to time, be surrendered, to the amount of \$5,500,000, or to raise the money to pay so much as may not be so surrendered.

The further amount of not exceeding \$1,250,000, to pay the floating debt of the company and to complete the Goshen line and the Jackson branch.

The further sum of \$1,250,000, for the purpose of making a double track upon such part of the line as may be found necessary, which last amount is not to be issued before the first of May, 1857, and not until an equal amount shall be added to the stock of the company, so that the amount of the bonded debt, secured by mortgage, shall not exceed the paid capital of the company.

Under this provision, a mortgage to the amount of \$8,000,000 has been executed to a trustee for the foregoing object, and the same has been recorded in the several states through which the railroad extends.

The bonds run for thirty years, and a sinking fund is established that will meet the principal of the bonds at maturity. They will soon be ready to exchange for those now outstanding, and for which exchange we have already numerous applications.

The statements from the treasurer, hereto annexed, marked A and B, show the business of the company from the opening of the road in the year 1852 to the 30th of September ult., and also its state in general account to 31st day of July.

By order of the board of directors,

JOHN WILKINSON, President.

New York, Oct. 12, 1855.

*General Statement Michigan Southern & Northern Indiana R. R. Co., 31st July, 1855.*

|                                                                 |                    |
|-----------------------------------------------------------------|--------------------|
| Construction, including Goshen Air Line and Jackson Branch..... | \$9,522,199 37     |
| " Erie and Kalamazoo R. R.....                                  | 761,466 68         |
| Equipment.....                                                  | 1,343,085 44       |
| Steamboats.....                                                 | 418,457 10         |
| Materials on hand in Store and Shops.....                       | 256,567 24         |
| Stocks, Bonds and Mortgages.....                                | 712,075 32         |
| Cash in Bank, and in hands of Cashier and Agents.....           | 291,166 71         |
| <b>CAPITAL STOCK—</b>                                           |                    |
| Old or Dividend Stock.....                                      | \$4,000,000        |
| Construction.....                                               | 2,846,300          |
|                                                                 | <b>\$6,846,300</b> |

**BONDS—**

|                                                                    |                        |
|--------------------------------------------------------------------|------------------------|
| Mich. South. Mortgage, 1850.....                                   | \$1,000,000            |
| " Bonds of 1863.....                                               | 500,000                |
| " Lucumbe, 8 p. c. '57.....                                        | 500,000                |
| Nor. Indiana Mortgage, 1861.....                                   | 1,000,000              |
| " Bonds of 1863.....                                               | 500,000                |
| Goshen Air Line of 1866.....                                       | 1,500,000              |
| Jackson Branch of 1865.....                                        | 500,000                |
|                                                                    | <b>5,500,000 00</b>    |
| Erie and Kalamazoo R. R. Bonds of 1862.....                        | 300,000 00             |
| Due State of Michigan in December, 1855.....                       | 25,000 00              |
| Bills payable.....                                                 | 319,454 59             |
| Dividends unpaid.....                                              | 20,614 69              |
| Interest on stock and bonds unpaid.....                            | 14,173 86              |
| Sundry balances of account.....                                    | 52,815 57              |
| Balance income account to July 1st, after payment of dividend..... | 37,775 46              |
| <b>Total.....</b>                                                  | <b>\$13,244,154 17</b> |

EDWIN C. LITCHFIELD, Treasurer

*Organization of the Consolidated Michigan Southern and Northern Indiana Railroad Company.*

**PRESIDENT—JOHN WILKINSON**, of Syracuse N. Y.

**DIRECTORS—**John Wilson of Syracuse, N. Y.; John B. Jervis, Edwin C. Litchfield, Charles Butler, Thomas Barron, Edwin D. Morgan, of New York, N. Y.; John Stryker, of Rome, N. Y.; Hugh White, of Cohoes, N. Y.; Hamilton White, of Syracuse, N. Y.; Daniel B. St. John, of Albany, N. Y.; Elisha C. Litchfield, of Cazenovia, N. Y.; John S. Barry, of Constantine, Mich.; Ezekiel Morrison, of La Porte, Ind.

**TREASURER—**Edwin C. Litchfield of N. Y.

**SECRETARY—**John M. Hopkins, of N. Y.

**DEPUTY TREAS.—**George H. Ford, of N. Y.

**CHIEF ENGINEER—**John B. Jervis of N. Y.

**GENERAL SUPERINTENDENT—**James Moore, of Adrian, Mich.

**ATLANTIC AND PACIFIC RAILROAD.**

A late number of the San Diego *Herald* has been received since our Extra went to press. This furnishes the pleasing intelligence, that the people of Southern California are alive to their commercial interests.

Under a charter granted by their own State, an instrumental survey has been made from San Diego to Fort Yuma, at the junction of the Gila and Colorado rivers. This survey corroborates the truth of the prediction of Col. Gray. "A more favorable pass" in the coast range of mountains has been found, on the direct route, shortening the distance from eighty to one hundred miles between these two points, as surveyed by the way of the San Geronimo Pass, and entirely obviating the necessity of tunnels and inclined plains, as suggested by Col. Gray.

This will have an important bearing upon the welfare of that city, securing to it wealth, commerce, and improvement, as the happy result arising from the great commercial transactions of all civilized nations springing up in their midst.

From the San Diego Herald.

We noticed in our last issue, that the San Diego and Gila Railroad Company were then engaged in completing their reconnaissance between this point and the Rio Colorado. Since that issue they have completed that portion of the route lying between tide water and Captain Grande's. And although we have not yet been favored with the official report of Mr. Rosenbach, (the engineer under whose superintendence the same was conducted,) yet we have learned sufficient to

make public the result of their labors. Upon the organization of this company last winter, the route between this and the mouth of the Rio Gila, was divided into three sections. The first embracing the mountainous section lying between the San Diego River and the Desert. This, on account of Lieut. Williamson's report of impracticability, was immediately surveyed, and the actual level of the surface taken. It was found to present at no place a greater grade than one hundred and seven feet and three inches to the mile, (and this for only three miles,) which may be reduced one half by the ordinary excavations and fillings. The second section, was that embracing the desert west of the Colorado. This upon actual survey is found not only to be free from the obstacles occasioned by floating sand hills, but to present almost a perfect level from the base of the mountains at Carrissa Creek to the Rio Colorado. The third and last section, is that which has just been completed, lying between the commencement of the first section (at Capt. Grande's) and tide-water in our harbor. Having heretofore noticed the practicability of the first two sections surveyed, when they were completed, we now give the result of the last, which finishes the survey between this point and Rio Gila.

The first nine miles of the survey shows an average grade of a few inches over six feet to the mile—no single mile being over eleven feet. For the next three miles and a half there is an average grade of about fifty feet, (the highest grade of a single mile being fifty-six feet seven inches,) which is through the canon, into the Cajon valley. Through this valley to the Cajon house, a distance of nearly seven miles, and from thence to Captain Grande's some twelve miles farther, the grade differs but little from that of the first nine miles farther. Thus settling forever the practicability of this route for railroad facilities. The transit and level has passed over every foot of this road, and no doubt can be entertained but that the exact grade is reported.

Few roads can be built within the State of California, over ground possessing so many advantages as this route; the whole distance is of an easy grade, requiring but few excavations or fillings—the middle or mountainous section passes through the finest timbered portion of our country, and from which all timber required for the use of the road can be supplied; water in abundance can easily be procured at every station where it may be needed.

The San Diego and Gila Railroad Company have demonstrated (what by many was thought heretofore, doubtful,) that a good road exists from this to the mouth of the Gila. Having settled the question of practicability, we hope they will push forward with the same commendable zeal that has thus far actuated them, until the road is completed, and we have the steam car passing between this and the river.

It is the opening link on this coast, of that great line that must wed the Atlantic with the Pacific Ocean.

The Southern line may be looked upon as a fixed fact. From every portion of the country where we find the question seriously discussed, it is conceded that this is the only route that can be built upon for many years to come. It presents every advantage in climate, distance and grade. Already, Louisiana, Mississippi, Arkansas, Tennessee, Illinois and Missouri are stretching out their lines to meet



the eastern terminus, then let not the west be idle. But aside from the great national highway, this company have every inducement to speedily complete the road. *The present prices paid for the transportation of Government stores to Fort Yuma, at the mouth of the Gila, will pay annually five per cent of the actual cost of the construction of the road;* and this must inevitably pass over this line. In addition, it is well known that a good wagon road exists from Salt Lake Valley to the Colorado, and upon the completion of this road, every thing intended for that section of the country will pass through San Diego. We believe the Company see and feel what is their own interest, and will permit no unnecessary delay in putting their road under contract, and pushing the same on to completion.

#### FROM THE GADSDEN PURCHASE.

#### SOUTHERN PACIFIC RAILROAD ROUTE.

EL PASO, Sept. 9, 1855.

The following interesting letter from the New York *Tribune* of the 15th of October, will be read with satisfaction. It presents the fact of a new and more favorable route than any one heretofore discovered, and brings to light the existence of greater and more valuable agricultural, and mineral resources of the country west of the Rio Grande.

Our valley has been lately increased in its temporary population by the arrival of two government parties: one commanded by Maj. Sprague who arrived here some time since, having left Captain Pope on the Llano Estacado, where he is carrying on his operations for boring for Artesian wells. The other party is that of the Pacific Railroad survey, under the command of Lieutenant John G. Parke, of the Topographical Engineers. They arrived here on the 7th from Fort Fillmore, having reached the Mesilla Valley from the Gila Desert on August 13. The stay in the Mesilla Valley was in order to allow the mules to pull up, so as to make a quick return to the States *via* San Antonio: they leave here to-morrow. The party consists of Lieutenant John G. Parke, commanding; A. H. Campbell, railroad engineer; N. H. Hulton and G. G. Garner, assistants; H. Custar, topographer; and Dr. Antisell, physician and geologist. We learn that the party left San Diego, Cal., on May 26, arriving at Fort Yuma on June 7, and Mesilla Valley on August 13. The surveys made on the route between the Pima villages and the Rio Grande were many and extensive, and much new country was explored for the first time. The valley of the San Pedro river has been carefully examined, and, contrary to the general belief, an easy road for the iron horse exists there. Instrumental surveys and barometric readings of the difficult portions of the route on this parallel (32°) were also made, which accounts for the long time spent in the survey of the desert country between the Colorado and the Rio Grande. The result of these accurate observations, we are told, are that by no other proposed route is there so easy a grade as by that examined by Lieut. Parke: even Whipple's has to pass over a road at least two thousand feet higher than that surveyed by the party. From the information gleaned from this source, it appears absolutely certain that there can be no road made with the same economy or facility as one from San Antonio, Texas, to here, and hence to San Diego or Los An-

geles, California. It is the natural line for a railroad, as no mountain chain exist on this part of the continent, and the land is a gentle and gradual elevation from eastern Texas to the Rio Grande valley, and as gradual a slope to the Pacific from this river to the Colorado. Water also can be had at present at average distance of twenty-five miles on the route, and by sinking into the clay subsoils ordinary wells can be made to supply all the demands. We learn also that Artesian well-boring will meet no success on the valleys west of the Rio Grande; at least, such is the opinion of Dr. Antisell, the geologist of the survey, who has deduced his conclusion from an examination into the rain-fall of the district, which it appears does not amount to such a quantity as would justify the great expense incurred by Artesian boring. This, we believe, is a new view of this matter, and would, perhaps, prevent unnecessary expense if the same calculations were previously made in all such cases. The geological condition of the strata favorable for the existence of Artesian wells are met with on the plains of the Gadsden purchase; but as the fall of rain is slight, Dr. Antisell, believes that the wells are not there. There is, however, water in abundance for all ordinary travel, and before a railroad can be established here, a good wagon road should be made, which would be frequently traveled, and mail-routes might be established to deliver the mails along those valleys now settling up, and even reach California as soon as the ocean ship mails. There is no doubt that the mail could be carried between San Antonio, Texas, and San Diego, California, in thirty days, as the route has been traveled frequently in that time, and intervals of it even quicker; thus, from San Antonio to here has been traveled in twelve days (six hundred and seventy miles;) wagons have traveled in nineteen days from this river to Fort Yuma, and horsemen in fourteen with ease; and the route from the Colorado river to San Diego can be traveled in three days when that road is graded and worked a little. There has been no Indian trouble during this year on this parallel, and little likelihood of any for some time to come. This line offers every facility for overland California emigration. There is no doubt that the day is not far distant when Guaymas will be the terminus of the line of travel across the continent; by making the railroad terminus at that point, one-half the line of travel from the Rio Grande westward would be saved, and a steamer thence to San Francisco would shorten the whole route several days — leaving Tuscan and starting along the headwaters of the Zaguí river, down its valley, through a populous and fertile district to the gulf; but we are forgetting that it is still Mexico.

Nothing can exceed the beauty and fertility of the Mesilla and El Paso Valleys; grapes, pears, peaches, as fine as any raised in the States, are grown here; beets and other roots even superior. Potatoes can be raised on the mountain sides — the bottoms being too warm. When filled up by an active population New Mexico will be a rich State. Along this valley are mines of lead, copper and silver, waiting to be opened; the silver veins in the Oregon mountains east of the Mesilla Valley being as rich as those of Mexico. These have been examined by the geologist of Parke's survey, and will be reported upon. In fine, this country only waits for some public avenues of travel to be opened up to make it one of unsurpassing comfort and wealth to the first settlers.

## Miscellaneous and Mechanical.

### VITAL STATISTICS.

In the range of Modern Statistical inquiries the subject of Life and Mortality are among the most important. They show the effects of the social laws on life, and then go far to develop one part of social science. We shall will endeavor hereafter, to furnish some facts on this subject. The following article is extracted from the Baltimore *American*, one of the most valuable newspapers in the country:

The general ratio of mortality given by Dr. Joynes in his analysis of the vital statistics of Baltimore in 1850, for the nine years preceding, including and following 1840 was:

|                                              |            |
|----------------------------------------------|------------|
| For the general pop. (excluding still born). | 1 in 45.42 |
| “ white “ “ “                                | 1 in 46.40 |
| “ free blk “ “ “                             | 1 in 37.17 |
| “ slave “ “ “                                | 1 in 26.59 |

Dr. Frick's ratio differs somewhat from this and is given for the purpose of showing that the difference between his ratio and that for the nine years preceding, including and following 1850 may not appear greater than it really is:

|                                                     | Nine years including 1840 | Nine years including 1850 |
|-----------------------------------------------------|---------------------------|---------------------------|
| For the general population, (excluding still born.) | 1 in 43.                  | 1 in 40.7                 |
| “ white “ “ “                                       | 1 in 45.2                 | 1 in 41.                  |
| “ free blk “ “ “                                    | 1 in 39                   | 1 in 45.4                 |
| “ slave “ “ “                                       | 1 in 32.4                 | 1 in 19.6                 |
| “ all colored “ “ “                                 | 1 in 37.8                 | 1 in 23.9                 |

Dr. Frick is satisfied that although, in the nine years including 1850, the ratio for the whole population and for the whites is correct, yet he is sure there is no such mortality among the slave population as 8 per cent.; and almost equally so, that the deaths among the free blacks are not less than among the whites. This may be explained by the fact, that although the whole deaths for 1850 are increased over 1840 only 80 per cent., the increase among the slaves for the same period is 250 per cent., and, moreover, this great increase is principally registered in the year 1854. It is probable that, in the returns to the health office, many of the deaths of the free blacks were recorded as slaves.

A comparison of the present mortality with that of 1840 shows that the health of the community is decidedly lessened. In order to make a comparison of the health of the city since 1850 with the preceding ten years, Dr. Frick states the comparative mortality of the entire population for the separate years, it being almost impossible except in the years when the census is taken to separate the races with any degree of accuracy:

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| 1840..... | 1 in 50   | 1850..... | 1 in 40.1 |
| 1845..... | 1 in 46   | 1851..... | 1 in 42.9 |
| 1846..... | 1 in 46.4 | 1852..... | 1 in 38.5 |
| 1847..... | 1 in 42.6 | 1853..... | 1 in 41.9 |
| 1848..... | 1 in 39.8 | 1854..... | 1 in 39.5 |
| 1849..... | 1 in 38   |           |           |

|                                                       |            |                               |           |
|-------------------------------------------------------|------------|-------------------------------|-----------|
| Average of '48, '49, '50.....                         | 1 in 39.3  | Average of '52, '53, '54..... | 1 in 40.1 |
| For New York City, average of 1849, '50, and '51..... | 1 in 26.17 |                               |           |
| “ Suffolk County, Mass., in 1849.....                 | 1 in 27.4  |                               |           |
| “ State of Massachusetts, “.....                      | 1 in 35.8  |                               |           |
| “ Philadelphia, 854.....                              | 1 in 38.4  |                               |           |
| “ London, average of 1850, '51, '52, '53 and '54..... | 1 in 27.9  |                               |           |

This comparison shows an almost steady increase of mortality in the city of Baltimore from 1840 to 1850, when it is again diminished for two years, and then varies slightly up to the present. It is, however, seen that the average for 1848, 1849, and 1850 is somewhat higher than that of 1852, 1853, and 1854. The probable explanation of the above lies in the fact, that in 1849 cholera made its appearance in a very virulent form, in the Baltimore City Alms-house, and the citizens becoming alarm-



ed, aided the corporation in effecting a thorough cleansing of the alleys and purloins of the city. The diminished mortality of the two following years shows the benefit the city experienced from these precautions; and, although the difference between one death in 38 and one in 42.9 does not seem to be very great at first glance, yet a simple calculation shows the difference in actual deaths to be over 500 in the course of the year.

As a comparison with the northern cities, Dr. Frick has calculated the ratio of mortality in New York for three years. It is one in 26.7 In Suffolk County, Mass., (nearly the whole of which is made up of the city of Boston,) for 1849, one in 27.4. The whole State of Massachusetts, one in 35.8. In Philadelphia, for the year 1854, one in 38.4; and for the city of London, an average of five years, one in 27.9. We thus see that we enjoy a less mortality in Baltimore than in New York, Boston, Philadelphia or London, or even than the entire State of Mass. But the data of the first two cities are not exactly the same, and the comparison, therefore, is somewhat unfair. The large mortality in New York is owing to the number of deaths occurring among the emigrant population, and cannot be fairly considered the mortality of the city, many of them having disease at landing, or soon after; while the comparison for Boston is for the year when epidemic cholera was prevalent, and occasioned nearly 700 deaths. But still the fact remains, that the average mortality of Baltimore is less than any of the above-mentioned places.

From tables compiled with great care, calculating the average age in which death takes place, we find it to be, in Baltimore, from 1845 to 1850, 19.8 years, at the present time 20.6 years, evidencing a slight increase in the duration of life; for New York 17.9 years, for Philadelphia 26.7 years, Massachusetts 26 years, and London 26.8 years. This result is unfavorable to Baltimore and New York, but it is explained by the very great mortality in these two cities of persons under fifteen years of age. The tables compiled show that the deaths under fifteen years of age in Baltimore, averaged from 1845 to 1850, 55.98; and from 1850 to 1854, inclusive, 57.04; whilst in Philadelphia the average was but 48.02, in London 46.84, and in New York, where early mortality is most prevalent, it was 61.40. In 1829, '31 and '32, it is stated by Dr. Dunglison, in his Elements of Hygiene, that the deaths under five years of age, in Baltimore, were 43.8 per cent.; from 1840 to 1850, they were 47.9; and from 1850 to '54, 43.8 showing an increase of five per cent. in twenty-five years.

### PIG IRON.

According to the annual statement of the iron masters of the river Clyde, in Scotland, for the year 1848, it appears that the average cost of pig iron, delivered on the Clyde for that year, was, in round numbers, \$12.50 per ton; while in Wales and Staffordshire, the average cost was about \$18.75 per ton, which adding the ordinary expenses of importation would make the cost of the Scotch pig, delivered in New York, about \$19.50 per ton and the English and Welsh pig over \$26 per ton, even though it came in duty free. And it must also be borne in mind, that the year of 1848 was one of unusual low wages in Great Britain. Coal miners and ore miners receiving only from eleven to twelve shillings per week; keepers and fillers in furnaces receiving 15 to 17 shillings sterling per week, while all other labor was equally low in proportion, whereas now, those species of labor

command more than fifty per cent. advance, and will probably continue to command it for a long period of time. California, Australia, and other places of mining enterprise and interest having drawn off a large proportion of the very best miners and iron workers in the kingdom, which with the constant drain in the same direction of the remaining portion, and of the new recruits the moment they are able to leave, must tend to keep up the price of labor in the mining and iron branches of British industry. And so long as that is the case, there is very little to fear from foreign competition in the iron trade of this country, particularly with well and judiciously located establishments. I might enlarge very much upon the chances against foreign competition, and fill my entire space with statistics to show you that we have seen our worst times in that respect, but I do not deem it at all necessary, or of any further relevancy of the question in hand. In order, however, to show you what you have to compete with at home, I will give you the cost of producing and delivering in New York, pig iron from the great Lehigh Valley region of Pennsylvania; that being the most accessible, and most formidable American rival you will have to contend with.

The average cost of coal delivered at the furnaces throughout the valley, is about \$3 per ton. The average cost of hematite ore yielding 40 per cent., is \$2.12 $\frac{1}{2}$  per ton; average cost of magnetic ore is \$3.75 per ton; average cost of limestone is \$1 per ton, which, as they ordinarily run, makes the account stand thus:

|                                               |        |
|-----------------------------------------------|--------|
| Two tons coal, three dollars per ton.....     | \$6 00 |
| " " hematite ore, 17s. per ton.....           | 4 25   |
| One third do. magnetic ore, 30s. per ton..... | 1 25   |
| Three-fourths do. limestone, 8s per ton.....  | 0 75   |
| Labor and incidentals, say.....               | 4 00   |
| Transportation to New York.....               | 2 62   |

Making the cost per ton at tide water, \$18 87 or 62 cents less than the cost of Scotch pig iron laid down in New York, without duty added.

The probable cost of making iron at Hudson will be, allowing that the same proportion of materials are used, with the same item of expense for labor and incidentals, as follows. It having been ascertained that the ore from the mines whence you contemplate receiving your supply can be transported to your works at a cost not exceeding one dollar and a half per ton; we will estimate the cost of mining at 60 cents, which is believed to be ample, and allow 20 cents per ton for value in the mine; making the total cost of your hematite ore at the furnace \$2.25 per ton. Magnetic ore can be obtained in great abundance at \$3 per ton, delivered at the works; Lackawana coal, upon an average, say \$4.25 per ton, and lime 70 cents per ton; and the account will stand thus:

|                              |                  |
|------------------------------|------------------|
| Say two tons coal.....       | \$8 50           |
| " " hematite ore.....        | \$2 25..... 4 70 |
| " 1 3 " magnetic ore.....    | 3 00..... 1 00   |
| " 3-4 " limestone.....       | 0 80..... 0 2    |
| " Labor and incidentals..... | 4 00             |

Making the cost of your iron \$18.72 per ton on your wharf, and in as good market as the city of New York. Thus you will have your iron at fifteen cents per ton less than the Lehigh iron can be laid down at tide water for, and seventy-eight cents per ton less than Scotch pig iron can be laid down in this country, even though we have free trade. And these, gentlemen, permit me to say, are no studied or forced figures, conjured up to present to you a pleasing and satisfactory evidence of the advantages of your enterprise, but are figures and statements that cannot be controverted or gainsayed; and this is not all; I need not stop here with the advantages you possess, but can assure you that when your iron is made, if made from the ores I have examined for you, you need not sell it in the same market and at the same price at which the Pennsylvania and Scotch irons must be sold, as it will hold altogether a different rank, and command a much higher price. As to the average price you will be able to obtain for it, I cannot give you any positive assurance, further

than to say, that the grade of iron with which yours will rank has never, for any length of time, run below \$28 to \$30, and often has commanded \$35 to \$40 per ton; but if we take the lowest point to which I have ever known it to go, say \$24, it will still give you a very handsome return for your investment. Supposing your works to be of the capacity of the Hudson Iron Company's works, you will be enabled to produce from 12,000 to 14,000 tons of iron per annum—say the lowest amount and at the lowest price, and it will give you 15 $\frac{1}{2}$  per cent. profit upon your whole capital, and in years of medium price, say \$30 per ton, it would yield the very great profit of \$184,400, or about 34 per cent. per annum.

These figures might, in some places, seem fabulous, and it is only because I can point to still greater ones, which have been realized in the iron trade, during the past two years, that I am emboldened to state what I so conscientiously believe to be within the bounds of prudence.

In addition to the direct profits upon the iron, there is one other, and quite an important one too, that you may count upon, and that is the increased value constantly added to your real estate, by means of the slag from your furnaces in filling up the bay about your works—and having so large a portion of your grounds on the east side of the Hudson River Railroad, and running quite up to the Hudson and Boston Railroad, where the filling is comparatively light, you will, in a few years, be able to offer to other and important manufacturing enterprises, the most desirable locations in the city of Hudson.

*Estimate of the cost of erecting two Blast Furnaces of the size of the Hudson Iron Company's Furnaces, with two separate engines, including Wharf, etc., etc.*

Wharf 200 feet front by 225 feet deep, with cribbed front and return crib on the south side, and piled side on the north—estimating the depth of the crib in the front to be eight feet, on the south side the average depth to be six feet; the piles on the north to be driven close together and sawed off at low water mark, and the wharf finished with square timbers same as in front, say five feet deep, the timbers averaging twelve inches square, all properly bound, spiked and anchored; the cribs to be ten feet wide, with cross the sections eight feet wide and twenty feet long, every twenty feet; will require about 21,000 feet of running measure of timber for cribbing.

|                                                                                                                                                                        |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Wharf, 300 feet front by 225 feet deep, complete.....                                                                                                                  | \$ 7,162 32 |
| Two blast furnaces, of the dimension of the Hudson Iron Company's works, with two engines, blowing works, etc., etc., complete—including location.....                 | 137,900 00  |
| Working capital necessary to conduct the business in an independent manner.....                                                                                        | 50,000 00   |
| Thus making the cost of the works, complete.....                                                                                                                       | 195,000 00  |
| And leaving a reserved stock to be used for the purchase of mines, extending the works, or for such purposes as may be deemed for the interest of the company, of..... | 205,000 00  |

This, gentlemen, is a rough and brief estimate, yet it is made from data in my possession, and may be relied upon as not far from the actual figures you will find your works to cost. If there shall be found any difference in the result, it will be found that my estimates of the cost of wharf and furnaces are above the limit, as you may rest assured that the whole work can be put under contract with good and reliable parties at my estimates. I did not deem it necessary at this stage of your proceedings to go into a close and special estimate of each and every part of the works, as I believed it would not forward, but perhaps might, on the other hand, militate against the interest of the company, by preventing parties, when proposals are asked for the construction of the works, from bidding as freely and as independently as they otherwise might do.—*Mining Magazine.*



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

| COMPANY.                                                              | NATURE OF BOND.                          | INT. DUE.     | OFF'D. | ASK'D. | SHS. OFF'D. | ASK'D.   |
|-----------------------------------------------------------------------|------------------------------------------|---------------|--------|--------|-------------|----------|
| Alabama and Tennessee.....                                            | 1st mortgage, convertible in 1872        | 7 1872        |        |        |             |          |
| Baltimore and Ohio.....                                               | Transferable. Taxed.....                 | 6 1865        | 70%    |        | 100         | 56½ 58   |
| Do do.....                                                            | Coupons. Not Taxed.....                  | 6 1875        |        |        |             |          |
| Do do.....                                                            | " ".....                                 | 6 1880        |        |        |             |          |
| Do do.....                                                            | " ".....                                 | 7 1860        |        |        |             |          |
| Do do.....                                                            | " ".....                                 | 6 1885        |        |        |             |          |
| Bellefontaine and Indiana.....                                        | 1st mortgage, convertible.....           | 6 1866        | 98     |        | 50          | 40       |
| Buffalo and Penn. State Line.....                                     | 1st mortgage, not convertible.....       | 6 1866        |        |        |             |          |
| Chicago and Rock Island.....                                          | 1st mortgage, convertible.....           | 7 1870        | 95%    | 98     |             | 93% 104  |
| Chicago and Mississippi.....                                          | 1st " ".....                             | 7 1862        |        |        |             |          |
| Do do.....                                                            | 2d " ".....                              | 7 1874        | 65     |        |             |          |
| Chicago and Aurora.....                                               | 1st " ".....                             | 7 1866        |        |        |             |          |
| Cincinnati, Newcastle and Mich. Real Estate.....                      |                                          | 7 1859        |        | 100    | 107         | 111      |
| Cleveland, Columbus, and Cin'tist mortgage, convertible.....          |                                          | 7 1855        |        |        |             |          |
| Do do do No mortgage, convertible.....                                |                                          | 7 1861        |        |        |             |          |
| Cleveland and Mahoning.....                                           |                                          | 7 1861        |        |        | 100         |          |
| Cleveland, Paines, & Ashtabula 1st mortgage.....                      |                                          | 7 1861        |        |        |             |          |
| Do do do 2d " not convertible.....                                    |                                          | 7 1860        |        |        | 67          | 70       |
| Cleveland and Pittsburgh.....                                         | 1st " convertible.....                   | 7 1873        |        |        |             |          |
| Do do do 2d sec. convertible.....                                     |                                          | 7 1863        | 93     | 94     | 50          | 81 83    |
| Cleveland and Toledo.....                                             | 1st mort. not conv. '73.....             | 7 1867        |        |        |             |          |
| Cleveland, Zanesville, & Cin'ti.....                                  |                                          | 7 1880        | 80     | 81     |             | 74 78    |
| Cincinnati, Hamilton & Dayton 1st mortgage " till 1855.....           |                                          | 10 5 & 10 y's | 42     | 43     |             |          |
| Do do do 2d mortgage.....                                             |                                          | 8 " "         | 40     |        |             | 12½ 14   |
| Cincinnati, N. C. & Michigan ... 1st mortgage, real estate, conv..... |                                          | 7 " "         | 68%    | 66     |             | 32½ 35   |
| Cincinnati Western.....                                               |                                          | 8 1859        | 28     | 41     |             | 12½ 15   |
| Cincinnati, Ind. and Chicago.....                                     |                                          | 7 1862        | 75     | 76     |             | 7½       |
| Cincinnati and Chicago.....                                           | Real Estate.....                         | 7 " "         | 60     | 61     |             |          |
| Columbus, Piqua and Indiana.....                                      | 1st mortgage, convertible.....           | 7 1859        | 80     |        | 91          | 93       |
| Do do do 2d " ".....                                                  |                                          | 7 1863        | 66½    | 67     | 50          | 25 28    |
| Columbus and Xenia.....                                               | 1st mortgage, convertible.....           | 6 " "         | 50     | 51     | 50          | 20 22    |
| Covington and Lexington.....                                          | 2d " till 1862.....                      | 7 1867        |        |        | 50          | 22½ 23   |
| Do do do Income.....                                                  |                                          | 7 1862        | 26     | 30     |             |          |
| Dayton and Michigan.....                                              | 1st " ".....                             | 7 1862        | 60     |        | 25          | 45 50    |
| Dayton and Western.....                                               | 1st " ".....                             | 7 " "         | 80     | 81     |             | 12½ 14   |
| Dayton, Xenia and Belpre.....                                         | 1st " ".....                             | 10 1853-6     | 92%    |        | 100         | 119% 122 |
| Eaton and Hamilton.....                                               | 1st mortgage.....                        | 7 1878        | 10     | 61     | 50          | 25 27    |
| Eaton and Kalamazoo.....                                              | 1st mort. guaranty Mich. S. R. R.....    | 6 1875        | 79     | 81     | 100         | 94 96    |
| Evansville and Crawfordsville.....                                    | 1st mortgage.....                        | 7 " "         | 88½    | 89     |             |          |
| Fort Wayne and Southern.....                                          |                                          | 7 1866        | 63%    | 63     | 50          | 50 52    |
| Franklin and Warren.....                                              |                                          | 10 1857       | 80     | 80     | 50          | 50       |
| Galena and Chicago Union.....                                         | Pledge of second section, center.....    | 7 1860-1      | 80     | 82     | 50          | 60 63    |
| Hillsboro and Cincinnati.....                                         | 1st mort.....                            | 7 1861        |        |        | 50          |          |
| Illinois Central.....                                                 | 1st mortgage, not convertible.....       | 7 1867        |        |        | 36          |          |
| Do do do Freeland.....                                                |                                          | 10 1857       | 70     | 72     | 50          | 11 15    |
| Indiana Central.....                                                  | 1st mortgage, convertible.....           | 7 1860-1      |        |        | 10          | 15       |
| Do do do " ".....                                                     |                                          | 7 " "         | 77     | 82     |             |          |
| Indianapolis and Bellefontaine.....                                   | 1st " ".....                             | 6 1863        | 83     | 85     | 50          | 95 97    |
| Indianapolis and Cincinnati.....                                      | 2d mortgage.....                         | 7 1861        |        |        |             |          |
| Indianapolis and Lafayette.....                                       | " ".....                                 | 7 1867        |        |        |             |          |
| Jeffersonville.....                                                   | 1st " not " ".....                       | 10 " "        |        |        |             |          |
| Junction (Ohio).....                                                  | 1st " ".....                             | 8 1864        |        |        |             |          |
| Do Indiana.....                                                       | Real Estate.....                         | 6 1863        |        |        |             |          |
| La Crosse and Milwaukee.....                                          |                                          | 7 1861        |        |        |             |          |
| Little Miami.....                                                     | 1st mortgage, not convertible.....       | 7 1858        |        |        |             |          |
| Do do do " till 1855.....                                             |                                          | 7 1873        |        |        |             |          |
| Louisville and Ashville.....                                          | " unconvertible.....                     | 7 1855-6      | 75     |        | 50          | 30 33    |
| Louis, Iowa, Central.....                                             | 1st mortgage, convertible.....           | 7 1866        |        |        |             |          |
| Mad River and Lake Erie.....                                          | 1st mortgage, convertible till 1855..... | 7 1860        |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          | 6 1861        |        |        |             |          |
| Do do do Dividend.....                                                |                                          | 7 " "         |        |        |             |          |
| Madison and Indianapolis.....                                         | 1st mortgage, convert. after 1853.....   | 10 1858-62    |        |        | 50          |          |
| Marietta and Cincinnati.....                                          | Domestic Bonds.....                      | 8 1864-75     |        |        | 50          | 20% 30   |
| Do do do United 2d " ".....                                           |                                          | 6 1873        |        |        | 50          |          |
| Hillsboro and Cincinnati.....                                         | 1st " ".....                             | 7 " "         |        |        |             |          |
| Maysville and Big Sandy.....                                          |                                          | 6 1873        |        |        | 50          |          |
| Maysville and Lexington.....                                          | 1st mortgage, convertible.....           | 8 1860        | 97     |        | 98          | 100      |
| Memphis and Charleston.....                                           |                                          | 8 1855-6      |        |        |             |          |
| Michigan Central.....                                                 | No mortgage, convertible.....            | 8 1857-8      |        |        |             |          |
| Do do do " not " ".....                                               |                                          | 7 1860-90     | 100    |        | 98½         | 101      |
| Michigan Southern.....                                                | 1st " ".....                             | 8 1862        |        |        |             |          |
| Milwaukee and Mississippi.....                                        | 1st " ".....                             |               |        |        |             |          |
| Mobile and Ohio.....                                                  | 1st mortgage 6s. 1884.....               |               |        |        |             |          |
| Nashville and Chattanooga.....                                        |                                          |               |        |        |             |          |
| New Albany and Salem.....                                             | mortgage on 1st section.....             | 10 1858-62    |        |        | 50          | 15 18    |
| New Castle and Richmond.....                                          | 1st " on other sec. con.....             | 8 1864-75     |        |        |             |          |
| New York Central.....                                                 | " convertible.....                       | 6 1873        |        |        |             |          |
| New York and Erie.....                                                | 1st mortgage, not convertible.....       | 7 1867        | 103%   | 105    |             | 91% 92   |
| Do do do 2d " convertible.....                                        |                                          | 7 1871        | 90     | 83     | 100         | 54% 56   |
| Do do do                                                              |                                          | 7 1863        | 93     | 97     |             |          |
| Northern Cross, Ill.....                                              | 1st mortgage, convertible.....           | 8 1873        |        |        |             |          |
| Northern, Indiana.....                                                | 1st " not convertible.....               | 7 1861        | 98     |        |             |          |
| Do do do 1st " "Goshen line.....                                      |                                          | 1868          | 90     | 91     | 105         | 106      |
| Do do do Construction Bonds.....                                      |                                          |               |        |        |             |          |
| Ohio Central.....                                                     | 1st mortgage, convertible.....           | 7 1861        | 61     |        | 30          | 32       |
| Ohio and Mississippi.....                                             | 2d " ".....                              | 7 1880        | 46%    | 53     |             | 7% 8     |
| Ohio and Indiana.....                                                 | 1st " ".....                             | 7 1867        |        |        | 50          | 14 18    |
| Ohio and Pennsylvania.....                                            |                                          | 7 1865        |        |        |             |          |
| Do do do Income. No mortgage, convert.....                            |                                          | 7 1872        |        |        | 50          |          |
| Pacific Mo.....                                                       |                                          |               |        |        |             |          |
| Panama.....                                                           | 2nd issue.....                           | 7 " "         | 107%   | 108    |             | 103% 106 |
| Parkersburg (or N. western Va.).....                                  | Guar. City of Balt.....                  | 7 1873        |        |        |             |          |
| Pennsylvania.....                                                     | 1st mortgage, convert. till 1860.....    | 6 1880        |        |        | 50          | 48% 40   |
| Peru and Indianapolis.....                                            | 1st " ".....                             | 7 " "         |        |        | 25          | 25 27    |
| Rock River Valley Union.....                                          | 1st " ".....                             | 7 1872        |        |        |             |          |
| Sandusky and Mansfield.....                                           | 1st " ".....                             | 7 1860        |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          | 10 1853-7     |        |        |             |          |
| Scioto and Hocking Valley.....                                        | 1st " income.....                        | 7 1861        | 50     | 51     | 50          | 50 51    |
| Southwestern, Tennessee.....                                          |                                          |               |        |        |             |          |
| Springfield and Columbus.....                                         |                                          |               |        |        |             |          |
| Steubenville and Indiana.....                                         | 1st mortgage, convertible.....           | 7 1865        |        |        |             |          |
| Terre Haute and Alton.....                                            | 1st " ".....                             | 1862-72       | 91     | 93     |             |          |
| Do do do 2d " ".....                                                  |                                          | 8 1865        | 80%    | 93     |             |          |
| Terre Haute and Richmond.....                                         | 1st " ".....                             | 6 1866        |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          | 7 1863        | 87     | 88     | 50          |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |
| Do do do 2d " ".....                                                  |                                          |               |        |        |             |          |

## STOCK TABLE.

CORRECTED WEEKLY

GOVERNMENT SECURITIES.

|                            | INT. | DUE. | OFF'D. | Δ&K'D |
|----------------------------|------|------|--------|-------|
| U. S. Loan.....            | 6    | 1856 | 105½   | 145   |
| Do .....                   | 6    | 1862 | 112    | 112   |
| Do .....                   | 6    | 1867 | 117 ½  | 120   |
| Do .....                   | 6    | 1868 | 118    | 120   |
| Do (int. ceased July 1) .. | 5    | 1853 |        | 102   |
| Do Coupons .....           |      | 1862 |        | 118   |
| Do " .....                 | 6    | 1857 |        | 118   |
| Do " .....                 |      | 1853 |        | 101   |

## STATE

|                             |    |         |          |
|-----------------------------|----|---------|----------|
| Alabama.....                | 5  | ...     |          |
| California.....             | 7  | 1870    | 86 88    |
| Arkansas.....               | 6  | ...     | 96       |
| Georgia.....                | 6  | ...     | 98 99    |
| Do.....                     | 7  | ...     |          |
| Illinois Canal Bonds.....   |    | 1860    |          |
| Do do registered.....       |    | 1860    |          |
| Do do.....                  |    | 1847    |          |
| Do do registered.....       |    | 1847    |          |
| Do do Internal Impt. 6..... | 6  | 1847    | 105 106  |
| Do Interest do.....         |    | 72      | 75       |
| Indiana.....                | 5  | ...     | 82 84    |
| Do.....                     | 2½ | ...     | 54 55    |
| Do Canal Loan.....          | 6  | ...     |          |
| Do do preferred.....        | 5  | ...     |          |
| Do special preferred.....   | 5  | ...     |          |
| Kentucky, 30 years.....     | 6  | 1871    | 101      |
| Do 16 years.....            | 6  | ...     | 102      |
| Do large bonds.....         | 6  | 1869-72 | 100½     |
| Do.....                     | 5  | ...     |          |
| Louisiana.....              | 6  | ...     | 91½ 93   |
| Michigan.....               | 6  | ...     | 97 98    |
| Missouri.....               | 6  | ...     | 88½ 90   |
| New York.....               | 6  | 1860    | 111 112  |
| North Carolina.....         | 6  | ...     | 99 100   |
| Ohio.....                   | 6  | 1856    | 102      |
| Do.....                     | 6  | 1860    | 105½ 106 |
| Do.....                     | 6  | 1870    | 118 119  |
| Do.....                     | 6  | 1875    | 118 119  |
| Do.....                     | 5  | 1855    |          |
| Pennsylvania.....           | 6  | ...     |          |
| Do.....                     | 5  | 1870    | 87 89    |
| Tennessee, long loan.....   | 6  | 1890    | 94 97    |
| Do Coupons.....             | 5  | ...     | 81 83    |
| Virginia Coupons.....       | 6  | 1886    | 97 99    |

## CITY SECURITIES

| CITY SECURITIES.    |    |         |          |
|---------------------|----|---------|----------|
| Albany.....         | 6  | 1871-81 | 99½      |
| Allgeheys.....      | 6  | 1875-7  | 80       |
| Baltimore.....      | 6  | 1870-90 | 99% 100½ |
| Do.....             | 5  | 1865    |          |
| Boston Bonds.....   | 4½ | 1860    |          |
| Chicago.....        | 6  | 1873-7  | 92½ 95   |
| Cleveland.....      | 6  | 1879    | 103½ 105 |
| Cincinnati.....     | 6  | 186-92  | 96 96½   |
| Do.....             | 6  | 1897    |          |
| Do.....             | 5  | 1884    |          |
| Do W. W.....        | 6  | 1885    |          |
| Covington.....      | 6  | 1857    | 80 80    |
| Jeffersonville..... | 6  | 1890    | 70       |
| Louisville.....     | 6  | 1880    | 86½ 87   |
| Memphis.....        | 6  | 1882    | 72½      |
| New York.....       | 7  | 1837    | 100½     |
| Do.....             | 5  | 1858-00 | 98 99    |
| Do.....             | 5  | 1870-5  | 97 100   |
| Do.....             | 5  | 1890    |          |
| Philadelphia.....   | 6  | 1876-90 | 94½ 95   |
| Pittsburgh.....     | 6  | 1869-78 | 81 82    |
| Do coupons.....     | 6  | 1883    |          |
| Racine.....         | 7  | 1873    | 85 86    |
| St. Louis.....      | 6  | 1870    | 85 86    |
| Wheeling.....       | 6  | 1873    | 73 75    |

## COUNTY BONDS

|                                                            |   |        |    |    |
|------------------------------------------------------------|---|--------|----|----|
| Bourbon, Ky.....                                           | 6 | 1881   | 73 | 80 |
| Darke, O.....                                              | 7 |        |    |    |
| Fairfield, O.....                                          | 7 | 1862   |    |    |
| Fayette, Ky.....                                           | 6 | 1881-3 | 75 | 75 |
| Hancock Co.....                                            | 7 |        | 70 | 75 |
| Mason, Ky.....                                             | 6 | 1881   | 73 | 76 |
| McCraken Co. Ky., endorsed by<br>New Orleans and Ohio R.R. |   |        |    |    |
| St. Louis.....                                             | 6 | 1866   | 80 | 85 |
| Do.....                                                    | 7 | 1871   |    |    |

## BANKS

| BANKS.                                |        |
|---------------------------------------|--------|
| OHIO.                                 |        |
| American Exchange Bank, N. Y.....     | 118    |
| Ohio Life Insurance and Trust Co..... | 98 100 |
| Washington Insurance Co.....          | 84 85  |
| City Insurance.....                   | 70     |
| Cincinnati Insurance Co.....          | 84     |
| National Insurance.....               | 75 80  |

KENTUCKY.

|                                    |                       |
|------------------------------------|-----------------------|
| Bank of Kentucky and Branches..... | 100                   |
| Northern, and Branches.....        |                       |
| Southern, and Branches.....        |                       |
| Bank of Louisville.....            | 93                    |
| Kentucky Trust Co.....             |                       |
| Farmers' Bank of Kentucky.....     | 105 $\frac{1}{2}$ 108 |
| Commercial Bank of Kentucky.....   |                       |

## INDIANA.

State Bank and Branches.....  
TENNESSEE.  
State Bank and Branches.....  
Union.....  
Planters.....

.....  
LAND WARRANTS.

|                                   | Buy'g  | Sell'g |
|-----------------------------------|--------|--------|
| 160 acre warrants, per acre,..... | \$1 10 |        |
| 80 acre warrants, .....           |        |        |
| 40 acre warrants .....            |        |        |



## RATES OF EXCHANGE.

| Place.            | Time.      | Buy'g. | Sell'g. |
|-------------------|------------|--------|---------|
| On New York.....  | Sight..... | 1/4    | 1/2     |
| Boston.....       | Sight..... | 1/4    | 1/2     |
| Philadelphia..... | Sight..... | 1/4    | 1/2     |
| Baltimore.....    | Sight..... | 1/4    | 1/2     |
| New Orleans.....  | Sight..... | par.   | to 1/2  |
| England.....      | 108        |        | 109     |

## SPECIE.

|                          |         |   |         |
|--------------------------|---------|---|---------|
| California clean, p. oz. | \$17 60 | @ | \$17 65 |
| Spanish Doubloons.....   | 16 75   | @ | 16 75   |
| Patriot Doubloons.....   | 15 75   | @ | 15 80   |
| Sovereigns.....          | 4 86    | @ | 4 88    |
| Guineas.....             | 5 00    | @ | 5 00    |
| American, new.....       | 1 00    | @ | 1 00    |
| American, old.....       | 1 06    | @ | 1 06    |
| Portuguese.....          | 1 00    | @ | 1 00    |

## SILVER.

|                        |          |   |          |
|------------------------|----------|---|----------|
| American Dollars.....  | 1 03 1/2 | @ | 1 04     |
| American Halves.....   | 1 03 1/2 | @ | 1 04 1/2 |
| Spanish Dollars.....   | 1 14     | @ | 1 14     |
| Spanish Quarters.....  | 1 00     | @ | 1 01     |
| Mexican Dollars.....   | 1 05 1/2 | @ | 1 05 1/2 |
| Five Franc pieces..... | 97       | @ | 97 1/2   |

\*The standard English value attributed to the Sovereign is \$1.44, in London. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending October 24, 1855.

|                                                                         |             |
|-------------------------------------------------------------------------|-------------|
| \$3,000 Ohio & Miss. R. R. Co., 7 per cent.                             |             |
| 2nd Mort. Bonds.....                                                    | 48 1/4      |
| 1,000 Little Miami R. R. Co., 6 per cent.                               |             |
| Bonds, due in 1883.....                                                 | 83          |
| 2,000 Indianapolis & Cin. R. R. Co., 7 per cent. Dividend Bonds.....    | 66          |
| 8,000 Cin., Wil. & Zanes. R. R. Co., 7 per cent. 2d Mort. Bonds.....    | 68 1/4      |
| 4,000 Covington & Lex. R. R. Co., 7 per cent. 2nd Mort. Bonds.....      | 66 1/2      |
| 1,000 Covington & Lex. R. R. Co., 6 per cent. Income Bonds.....         | 50 (& int.) |
| 6,000 Cincinnati Western R. R. Co., 8 per cent. Real Estate.....        | 40          |
| 1,250 Scioto & Hocking Valley R. R. Co. 7 per cent. Domestic Bonds..... | 26          |
| 20 Shares Colum. & Xenia.....                                           | 91          |
| 83 Covington & Lexing. R. R. 25 (& int.)                                |             |
| 150 " Cin. & Chicago R. R.....                                          | 12 1/2      |
| 200 " ".....                                                            | 12 1/2      |
| 64 " Indianapolis & Cin.....                                            | 60          |
| 25 " Little Miami.....                                                  | 95          |
| 80 " Central Ohio.....                                                  | 17 1/2      |
| 26 " Mad River & Lake Erie R. R. Co.                                    |             |
| 50 " Bellefontaine & Indiana.....                                       | 40          |
| 60 " Ohio & Miss.....                                                   | 7 1/2       |
| 100 " ".....                                                            | 8           |
| 57 " Cin. & Chicago.....                                                | 12          |
| 10 " Col., Piqua & Indiana.....                                         | 7 1/2       |
| 7 " Cin. & Lake Superior Copper and Silver Mining Co.....               | 2 1/4       |
| 4 " National Insurance Co.....                                          | 72          |

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAITE, STOCK BROKER, LON.

Oct. 5, 1855.

|                                                      |         |         |
|------------------------------------------------------|---------|---------|
| Belvidere, Del., guar. 1st mort., conv.....          | @       | 87      |
| Chicago & Rock Island, Mort., conv. 1858.....        | "       | 80      |
| Cin. Ham & Dayton, 2d mort.....                      | "       | 80      |
| Erie, 3d Mortgage, 1883.....                         | 85      | 87      |
| Sinking Fund.....                                    | 80      | 81      |
| Galena & Chicago.....                                | "       | 87      |
| Grand Trunk (Canada) Debenture.....                  | 91      | 93      |
| Great Western.....                                   | 115     | 118     |
| " non-conv.....                                      | 106 1/2 | 107 1/2 |
| Illinois Central, 1st Mort., 7 1/2.....              | 72      | 74      |
| " with option 70 per cent.....                       |         |         |
| shares till Jan. 1858.....                           | 77      | 79      |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill. Cent..... | 83 1/2  | —       |
| Little Miami 1st Mo. t. not conv. 6 1/2.....         | —       | —       |
| Marietta and Cincinnati, 1st Mort.....               | 81      | 81      |
| Michigan Central, conv. 8 1/2.....                   | 91      | 92      |
| N. York Central, No Mort. Not conv.....              | 81      | 83      |
| " conv.....                                          | 94      | 96      |
| Ohio and Mississippi, 1st Mort.....                  | "       | "       |
| Ohio and Pennsylvania, Income 1872.....              | 81      | 83      |
| Panama. No mort. conv. 1866.....                     | 98      | 99      |
| Pennsylvania, 1st Mort., conv.....                   | 90      | 91      |
| " Sterling, 2d Mort.....                             | 90      | 92      |
| Stenhouseville and Ind., 2d Mort.....                | "       | "       |

†The quotations given are sterling quotations. The American value is to be obtained by adding on exchange generally about 10 per cent.

## Monetary and Commercial.

The general business of the city for the past week has been very good. Money has been quite easy, and the supply fully equal to the demand. First class paper is easily negotiated at from 8 to 12 per cent., while other grades range at our previous quotations.

Eastern Exchange, as was anticipated, fell on Monday to previous rates. 1/4 to 1/2. It is not probable that exchange will rule any higher this season, for when the pork business gets fairly under way, the chances are that it will be lower.

The prospects of the West this fall are brighter than they have been for some time. With a perfectly healthy condition of our business men, and an ample supply of capital, together with the high prices of all our staple products, cannot, with even a limited regard to economy, but result to our advantage. Now, then, is the time for Western men to be looking most sharply to the interests of the West. And we trust, that while all are free to invest their surplus capital where they please, yet as Western men they will feel that it is to their interest to advance the great works that are struggling for completion at our doors, rather than to send it to New York or other monied centers, to promote the growth of more remote regions, from which they will never derive any benefit other than the per centum dividends. Let them remember that it is to these very works that they owe, in a great measure their present wealth and prosperity, and that although if the capital invested in Western railroads was utterly sunk, and not worth a copper as to dividends, yet is the West quadruply remunerated for the outlay in the enhanced value of the real estate, and the present rich harvest of our products.

The imports at New York show a considerable decline for the past week:—

|                           | 1854.         | 1855.         |
|---------------------------|---------------|---------------|
| Dry Goods.....            | \$689,101     | \$802,614     |
| General Merchandise.....  | 2,106,646     | 1,444,158     |
| Total.....                | \$2,775,747   | \$2,246,772   |
| Previous forty weeks..... | \$149,743,418 | \$116,597,713 |

Total since January 1st.....\$152,519,165 \$118,844,485

The exports for the same week were quite large, and exclusive of specie are over half a million in excess of the corresponding period of 1854.

## EXPORTS.

|                             | 1854.        | 1855.        |
|-----------------------------|--------------|--------------|
| From Jan. 1 to Oct. 13..... | \$50,188,392 | \$49,678,783 |
| Week ending Oct. 21.....    | 1,081,533    | 2,081,863    |

Total since Jan. 1st.....\$51,269,925 \$51,760,440

## NEW YORK STOCK SALES, OCT. 20.

|                                      |            |
|--------------------------------------|------------|
| 15,000 Indiana State Fives.....      | 82         |
| 10,000 Missouri 6's.....             | b60 89     |
| 10,000 Virginia 6's.....             | b3 97      |
| 50,000 Louisiana 6's.....            | b30 93 1/2 |
| 6,000 Erie col. v. bonds '71.....    | 80         |
| 6,000 " Bonds of '83.....            | 13         |
| 3,500 Illinois Central.....          | 78 1/2     |
| 300 Shares Chicago & R. I. R. R..... | 93 1/2     |
| 240 Erie.....                        | 54 1/2     |
| 50 Panama.....                       | 103 1/2    |
| 400 Reading R. R.....                | 93 1/2     |
| 350 Hudson River.....                | 36         |
| 450 Mich. Cent.....                  | 98         |
| 50 Mich. So. and No. Ind.....        | 98 1/2     |
| 50 Galea and Chicago.....            | 119 1/2    |
| 50 Cleve. and Tol.....               | 81         |

## ANN ARBOR AND JANESVILLE RAILROAD.

The people of Ann Harbor and vicinity held an adjourned meeting on the subject of the above road, September 25th, at which a report was read by J. Mann, Esq., showing the feasibility of the enterprise, and the favorable character of the route. Prof. Winchell who, in company with Mr. Weeks, had made a survey of the route between Ann Harbor and Manchester, eighteen miles; submitted a verbal report, in which he stated that the only difficulty to be overcome, was at the distance of two miles from the Michigan Central Railroad, and that this could be overcome. The people in that region appear in earnest about their project.

CHICAGO, ST. PAUL & FOND DU LAC RAILROAD.—The following is a complete list of the officers elected at a meeting of the stockholders of the Chicago St. Paul, & Fond du Lac Railroad Co., recently held in Chicago:

William B. Ogden, Henry Smith, John P. Chapin, George W. Gage, Nelson K. Wheeler, Chicago; Charles Butler, N. York; James W. Hickok, Burlington, Vt.; Wm. C. Langley, Wm. Jarvis, New York; John Bradley, Burlington, Vt.; Joel H. Johnson, Woodstock, Ill.; John J. R. Pease, Madison, Wis.; Jos. A. Wood, Janesville, Wis.; Daniel Jones, Watertown, Wis.; J. A. Butler, Fond du Lac, Wisconsin.

At a meeting of the Board held on the 4th inst., the following officers were chosen:

William B. Ogden, President; James W. Hickok, Vice President; Charles Butler, Treasurer; J. W. Currier, Secretary; Charles Butler, John Bradley, N. K. Wheeler, Henry Smith, James W. Hickok, Ex. Committee.

## BACINE &amp; MISSISSIPPI R. R. COMPANY.

This road is now open to Fox river, at Burlington, 26 miles. The construction of the remaining 42 miles to the Illinois State line at Beloit, is in rapid progress. Its completion, at a very early day, is placed beyond a doubt. The iron, chairs and spikes, for 52 miles, in addition to the 26 miles now laid, are all purchased. A large quantity is already on the dock here, and the remainder is shipped from New York. They have four locomotives; three are daily employed. Five others are expected to be received in the coming 60 days. All the work has been done from stock subscriptions. Not a single mortgage bond has as yet been sold, nor will it be necessary to sell more than \$300,000, to enable the Company to construct and fully equip the road 68 miles. The grading, masonry and bridging, for ten miles beyond Beloit, making 78 miles, was to be contracted for on the 15th October. This road will be extraordinary in its advantages, facilities and receipts, as it has been in the determined energy which has distinguished its prosecution thus far—its large stock subscription, its economy of management, its escape from loss, and that they have not been compelled to sell the mortgage bonds.

We are indebted to Hon. S. P. CHASE for Congressional Globe and Appendix, for which he will accept our thanks.

BANGOR LUMBER MARKET.—A statement of the amount of lumber surveyed at Bangor, from July 1st to October 1st, 1855, compared with the amount surveyed during the corresponding period of 1853 and 1854:

|                    |            |            |            |
|--------------------|------------|------------|------------|
| Green Pine.....    | 32,286,110 | 40,153,072 | 51,979,335 |
| Dry ".....         | 1,909,442  | 2,721,102  | 2,184,522  |
| Spruce.....        | 27,615,920 | 24,459,890 | 28,771,993 |
| Hemlock, Hardwood, |            |            |            |
| Bass, &c.....      | 3,584,680  | 4,937,384  | 3,040,570  |
|                    | 65,296,752 | 72,271,388 | 85,971,420 |

SURVEYOR'S OFFICE, Bangor, Oct. 2, 1855.



## RAILWAYS ARE HIGHWAYS,

*And therefore cannot legally be obstructed or removed by the owners.*

As there is quite a number of railways in this country in rather a precarious condition, resulting from financial troubles, and as some doubts exist with regard to the rights of the parties, creditors, owners, or part owners, it is well enough, says the Railway Times, to find out what legal steps may or may not be easily taken by them in their ownership to take up or remove any portion of the superstructure. We do not remember of any other legal decision bearing directly upon this question than the one referred to below.

Sometime in 1843 the Portsmouth and Roanoke Railway of Virginia was advertised and sold at a Sheriff's Sale to Mr. Francis E. Rives. After the purchase, Mr. Rives proceeded to take up and remove the superstructure. For doing this he was tried, convicted and punished, and from some report of the trial and decision of Judge Pearson, before whom the trial was held, we learn that the case turned upon the question, whether the railway was or is a public highway. The rule in law is that it is an indictable offense to obstruct a highway, whether by the parties who build it or by the parties who afterwards purchases it. The Judge decided that the railway was a highway, and stated the principle which governed the case in these words:

"The right of the Legislature to condemn private property for the purpose of the road, as the land over which it runs, the wood, stone, gravel, and earth required for its construction and repair, can only be derived from the fact that the road is for the public benefit, and is to be used as a public highway. To consider the road as mere private property, is to suppose the Legislature has taken the property of certain citizens without their consent, and vested that property in certain other citizens for their individual benefit; whereas to consider it as a public highway with certain incidental private interests, fully sustains the authority of the Legislature to make the condemnation. It is a principle of the common law which expands and adapts itself to new cases as they arise, that whenever the public has a right, and that right is invaded, the offender is liable to indictment, and in the case of a railroad constructed like the one under consideration by a joint stock company, although the company has a private interest, that interest is incidental—is secondary, and must be enjoyed so as not to defeat the paramount object, and one which is essential to the creation and existence of the road—the public right. If, therefore, the company should take up the whole or a part of the road, not with a view to repair or replace it with better materials, but with a view to obstruct and hinder the public in the use of it, it would fail within the principle, and the individuals offending would be liable to indictment.

"The Court decided that title passed to Rives, in his purchase of Sheriff's sale, because the superstructure was not subject to execution sale. The company may sell the materials before they are laid down, but as soon as they become a part of the road, the public right attaches, and neither the company nor a purchaser can take up or remove that part of a public highway. In reply to objections that a company having incurred debts cannot, by principles of law, hold property which creditors cannot reach, Judge Pearson says:

"The company, at the time of its creation, agreed to perform certain services to the public; after its creation, it incurred liabilities to individuals—as both cannot be discharged, the right of the public must be preferred, because it is first in time and first in importance, and because the individuals who gave credit did so with a full knowledge that the company had this public duty to perform, and one claiming under a creditor has no right to complain, because he is not permitted to do that which would prevent the performance of this public duty."

According to this decision, therefore, railway iron, sleepers, or other superstructure, once having been laid upon the road-bed, cannot be removed or taken up, no matter whether they are owned by the company or not.—*St. Louis Intel.*, Sept. 25.

## BRITISH RAILWAY STATISTICS.

The report that has just been issued from the Railway Department of the Board of Trade brings our knowledge of the statistics connected with these undertakings up to the close of the year 1854, and at a period like the present, when the influence of a war is exerted upon all the concerns and institutions of the country, it is highly satisfactory to discover that in so important a matter as that of railway enterprise there is no falling off to be lamented and no deterioration to be deplored.

The development of passenger traffic has been steady and uninterrupted. The total number of passengers conveyed on the railways of the United Kingdom was, reckoning in millions and discarding the odd figures, for 1849, 63 millions; for 1850, 72; for 1851, 85; for 1852, 89; for 1853, 102; and for the last year, 111. In stating the receipts from these passengers odd figures become of more consequence, and so we give the sums in full. These for the years above mentioned respectively were £6,277,892, £6,827,761, £7,940,764, £7,763,993, £8,561,077, and £9,174,945. To arrive at the gross receipts of railways for 1854, we must add to the last mentioned sum that of £11,050,779, for goods traffic, being more than a million and a half above the amount received under the same head in 1853. It will thus be seen that goods return more money to the companies than passengers—a result which expresses a steady and notable tendency in this direction for some years past. In 1859 out of every £100 returnable rather more than £53 was yielded by passengers, and rather more than £46 by goods. The latter, however, crept on, till in 1852 the products were nearly equalized, and, as the process still continued, we find goods in 1854 yielding £54 odd of the £100, and passengers but £45 odd; so that in six years time the relative returns from the two sources have been just above counterchanged. In the year 1849 the average rate of dividend on the whole of the ordinary share capital invested in railways, exclusive of returns upon preference shares and loans was only 1.88 per cent., whereas the figures last year stood at 3.39.

We come now to the case of accidents—a subject on which, as our readers will remember, we have often submitted arguments for their consideration. The gross number of casualties of this kind appears at first sight somewhat alarming, for in 1853 no fewer than 305 persons were killed outright on the various railways of the United Kingdom and 449 injured, while even last year the deaths were 223, and injuries 453. These amounts, how-

ever, admit of successive reductions, until in the end the result is not calculated to terrify a railway passenger endowed with ordinary caution and good sense. First of all, as many as 80 of the 223 persons killed last year were neither passengers nor servants of the company, but trespassers or others brought either by imprudence or misfortune into harm's way. Next, as many as 73 more were servants, either of the company or of the contractors, who met their deaths through their own misconduct or want of caution. A third deduction of 19 must be made for passengers whose deaths were brought about in a similar manner; so that only 51 fatal accidents remain to be accounted for as beyond the control of the sufferers, and of these 39 befall contractors' or companies' servants. No more than 12 railway passengers, therefore, met their deaths on all the railways in the United Kingdom from causes beyond their own control, and this is certainly not a large proportion out of the 111 millions conveyed. Upon the whole, it is obvious that there is great improvement in railway management, although the number of passengers conveyed in 1854 was greater by 8,000,000 or 9,000,000 than in 1853, the number of those killed (from causes beyond their own control) was but 12 in the former year against 36 in the latter. The injuries to passengers show an increase, being 331 against 280.

We notice with satisfaction that the average number of persons employed per mile on railways open for traffic appears to have increased, being returned at 11.59 in 1854, against 10.7 in 1853. On unopened railways the number of laborers employed was 35,806, and the total number of those provided with occupations on all railways, opened and unopened together, was 135,810. When we add that the total amount of capital raised for these undertakings up to the 31st of December, 1854, was £286,068,794, the importance of the whole subject will be very readily perceived.

STUEBENVILLE AND INDIANA R. R.—The Board of Trade of Philadelphia, have recommended to the merchants of that city to subscribe \$250,000 stock to the above road.

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

Plain Lithograph,.....\$0.50  
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Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

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and their Cargos,

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The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via, Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY.** Quebec & Kingston, Canada. **BERRY & WALKER.** Liverpool, England. Kingston, C. W., Sept. 15, 1855.



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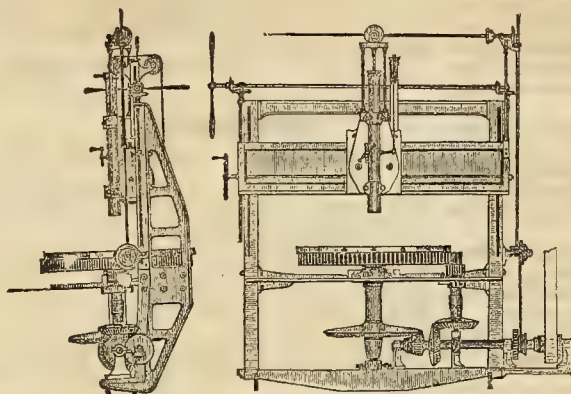
**Railroad Iron,**

**1,500 TONS,** now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.,** 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

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Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS,**  
**President.**

Also, for sale, two Twenty Horse Power Stationary Engines.  
Aug. 9 4t

**THE SCHENCK**  
**MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**

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**KEPS** constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

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Aug. 9 1y

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NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

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WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; we have adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

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SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-ly

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**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 15th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Grainger county and the town of Newport, Cocke county, (70 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly cash.

R. L. OWEN, Chief Engineer.

Aug. 2, 1855.

aug 2 12w

**THE KENTUCKY MILITARY INSTITUTE.**

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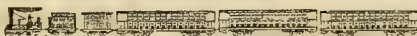
The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,

President of the Board.

July 26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a.m., and 3.30 p.m.—arriving at Urbana at 8.12 a.m., and 6.14 p.m. Returning—will leave Urbana, for Columbus, at 9.15 a.m., and 3.00 p.m.—arriving at 2.05 and 6.55 p.m.

The 4.50 a.m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have few hours at Columbus and leave by the 3.30 p.m. train—arriving at Urbana in time to get supper, and take the 5.35 p.m. train for Dayton and Cincinnati.

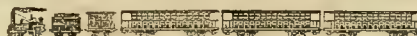
The 9.15 a.m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a.m.—arriving at Columbus at 12.05 p.m. in time for the 1 p.m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p.m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p.m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1855.

Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A.M., arrives at Terre Haute at 11.55 A.M., connecting with the 12.30 P.M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P.M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leave Vincennes by Stage at 3.30 P.M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P.M. Time from Indianapolis to St. Louis 2½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P.M., arrives at Terre Haute at 4.45 A.M.

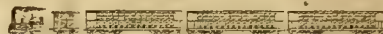
**TERRE HAUTE TO INDIANAPOLIS.**

MAIL TRAIN leaves Terre Haute at 7.10 A.M., arrives at Indianapolis at 10.42 A.M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P.M., arrives at Indianapolis at 3.15 P.M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY JUNE 25th 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A.M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A.M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A.M. This Train stops only at Hamilton, Middletown, Layton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk, and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A.M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamers Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A.M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P.M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P.M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P.M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A.M., 1.25 and 6.00 P.M.

LEAVE RICHMOND 7.00 A.M., 10.30 A.M. & 6.30 P.M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A.M.; 12.25, 2.15, 7.15 and 8.15 P.M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Supt.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

**CINCINNATI, HAMILTON & DAYTON, AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A.M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P.M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P.M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

D. N. MORROW, Superintendent

Feb. 8-17



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE, Through Tickets from all Parts of the West,**

ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED  
For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

W. M. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

**TO LOUISVILLE  
IN SIX HOURS.**

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M., and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 10 P. M.

FREIGHT—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST, Chief Engineer and Superintendent.

Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

**STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of **STEREOTYPING**, including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.  
C. F. O'DRISCOLL,  
188 1-2 Vine Street, Cincinnati, O.

**1855. New Arrangement, 1855****COMMENCING MONDAY, JULY 16.****LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.**

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:30 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAI'D WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route, CINCINNATI TO CLEVELAND in 8½ hours.  
CLEVELAND TO CINCINNATI in 8½ hours.

**Time via Little Miami Route from Cincinnati to**

|                          |           |
|--------------------------|-----------|
| To Columbus in .....     | 3¾ hours. |
| To Cleveland in .....    | 8½ "      |
| To Dunkirk in .....      | 14½ "     |
| To Buffalo in .....      | 16 "      |
| To Albany in .....       | 26 "      |
| To New York in .....     | 30¾ "     |
| To Boston in .....       | 35 "      |
| To Crestline in .....    | 6 "       |
| To Pittsburgh in .....   | 14 "      |
| To Philadelphia in ..... | 30¾ "     |
| To Wheeling in .....     | 10 "      |
| To Baltimore in .....    | 26½ "     |
| To Washington in .....   | 29 "      |
| To Steubenville in ..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

**FIVE DAILY TRAINS.**

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami) Depot, East Front street.

Office hours from 4 A. M. until 9½ P. M.  
P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

ISAAC W. HUNTER, Superintendent.

A. C. BARRETT, Gen. Freight Ag't.  
Indianapolis, October 1, 1855

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock A. M., stopping at Grant's Bend, New Philadelphia, Canons, Benton, Clarkson, Demosville, Butler, Irving, Fairmount, Culleville, Boyd's, Berry's, Robinson's, Garrett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

|                              |        |
|------------------------------|--------|
| Covington to Lexington ..... | \$3 00 |
| Covington to Paris .....     | 2 40   |
| Covington to Cynthia .....   | 2 00   |

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington. J. M. DOUGHERTY, Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

VIA LAWRENCEBURG.  
In connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 6.45 A. M., and 4 P. M. Arrive at Indianapolis at 11.15 A. M., and 8.30 P. M.; connecting with Terre Haute and Peru Roads for their P. M. Trains, and Lafayette for Chicago both morning and evening Trains, and at Chicago for Soute, West, North and North-West for both morning and night Trains.

Baggage Checked to Chicago.  
Office, foot of Main Street, corner of Water Street  
SIDNEY RICE, Agent.

Cincinnati, June 12, 1855.  
**W. G. ATKINSON,**  
Civil Engineer, Surveyor & Draftsman,  
CUMBERLAND, MD.

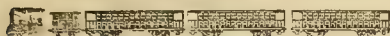
RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared.



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

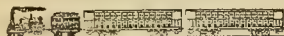
Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

**OLMSTED, TENNIS & PECK,**

Je. 9-14

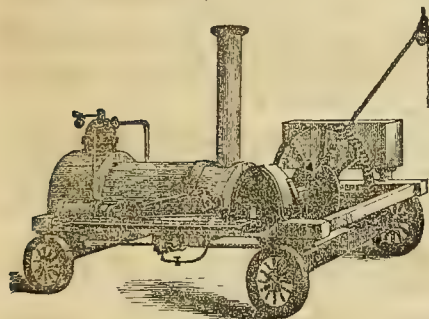
Louisville, Ky.

**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch

**RICHARD NORRIS & SON.****A. L. ARCHAMBAULT'S****PORTABLE STEAM****HOISTING & PUMPING ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

**A. L. ARCHAMBAULT,**

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug 2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

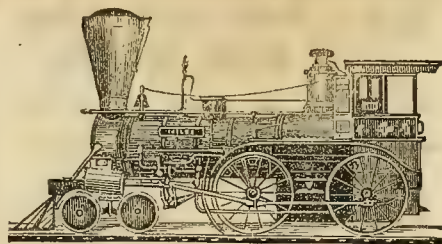
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DORAND, FULTON and TILTON.

Manufactured by **J. M. BROWN,**

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.

Feb. 13. 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in

**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs on a TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

**WILLIAM SHEKURNE,**

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.****JAMES FOSTER, JR.**

SOUTH WEST CORNER OF FIFTH &amp; RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnets, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. R. Record of October 20th. 1853. mar 14

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

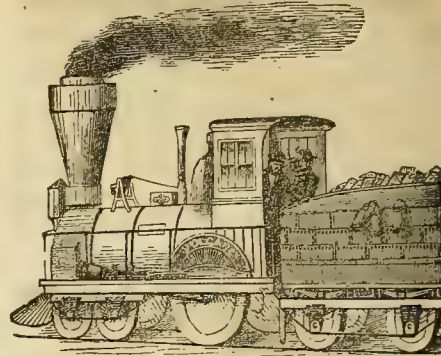
**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gun Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. h72.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap 20

**MOORE & RICHARDSON.****WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

Late of the firm of T. & R. Wason, Springfield, Massachusetts.

**Railroad Car Findings.****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Casting Fil Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**

Plush and Curled Hair.

Hand Cars and Baggage Burrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

**ALBERT BRIDGES,**

Late Davenport & Bridges, Car Manufacturers, Cambridgeport, Mass.

**ALFRED BRIDGES,**

Late Davenport, Bridges & Co., Fitchburg, Mass. toc6

**CAR MANUFACTORY,****Dayton, Ohio.**

F. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

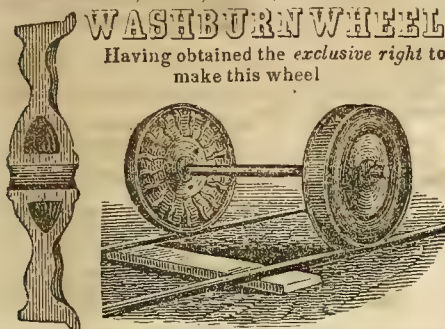
Dayton, Jan 24th. 1852.

Jan 26-4



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

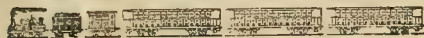


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL.

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BULLMAN'S PATENT IRON & WOOD BRIDGE.**  
We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

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**DAVENPORT, RUSSELL & CO.,**

**Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Pittsburgh, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

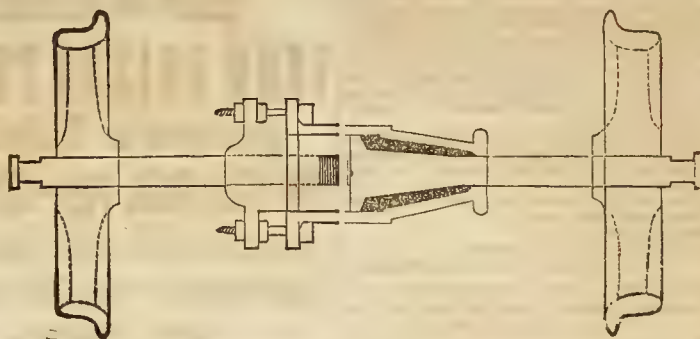
We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16/80 **JOSEPH DAVENPORT.**

**S. C. THOMSON & CO.,**  
MANUFACTURERS OF

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For Railroad Switches, Merchandise Cars  
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## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

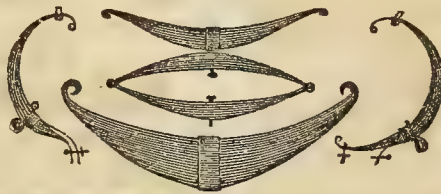
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

3y10†

## MCDANIEL & HORNER, LOCOMOTIVE AND CAR MOTIVE SPRING



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**U. WELLS,** R. R. Car Manuf. Petersburg, Va.  
**I. R. TRIMBLE,** Supt. Philad. R.R. Co.  
May 19

**M. B. MILLEN,** Gen. Supt. C. R. R. Savannah, Ga.  
**EMERSON FOOTE,** Supt. M. & W. R. R. Macon, Ga.  
**THOMAS DOUGHERTY,** Master Mach. do.  
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WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

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**Richard Norris & Son,** Locomotive Builders, Philad'a.  
**Wm. D. Lewis,** Esq. Pres't Catawissa R. R. Co. "  
**Charles H. Fisher,** Esq. "  
**Jno. Caldwell,** Esq., Pres't S.C.R.R. Co. Charleston, S.C.  
**Pinckney Huger,** Esq., Pres't N.E.R.R. Co.  
Oct. 12-11.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

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90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1853.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found for that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES,

For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES, For Railway Wheels. Railway Axles and Springs, SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

## FRIED. KRUPP,

Essen Rhenish Prussia.

Represented solely in the United States by

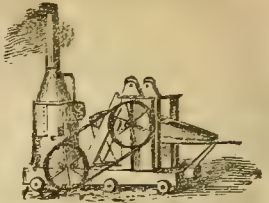
## THOMAS PROSSER & SON,

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PLATT STREET, New York!

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DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



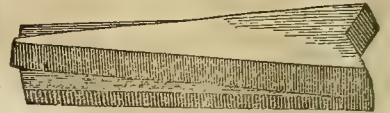
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, a.e., by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and halting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Hecker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

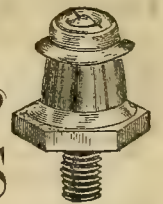
LEE & LEAVITT,  
15 Walnut st., Cinti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

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CUPS



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# Railroad Record.

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J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING, . . . NOVEMBER 1, 1855.

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ALLEGHANY VALLEY RAILROAD.—This road is now open from the month of Kiskeminitas river to Pittsburg, a distance of thirty-one miles. Trains are to run regularly from this time forth. From Kiskeminitas to Kittanning is expected to be finished by the 20th of November.

VOL. III.—No. 36.

### THE DIVERSION OF LABOR FROM AGRICULTURE AND ITS EFFECTS ON SOCIAL AND FINANCIAL ECONOMY.

High civilization is produced in the physical organization of society only by the increased variety, number, and extent of the arts. But every new art, and every increase in its extent, necessarily draws men from agriculture, in which they must otherwise be employed. But, if this process be continued, there must necessarily come a period at which, in the language of Malthus, *population presses against the limits of subsistence*. In other words, the increase of the numbers employed in the arts, is too great to be supported from the surplus food, produced by the agriculturists. If those employed in agriculture did not produce a surplus, it is plain, there could be no occupation but agriculture; for, then each man could only suffice to cultivate his own food. But happily for the civilization of mankind, one man can produce enough food for two; and thus, there is room furnished for the advance of commerce, and the arts. But, where is the *limit* of this surplus production? What is the *proportion*? That there is a limit, is plain enough. For, though one man can produce food for two, by agricultural labor, he cannot produce enough for a hundred, much less, if that hundred require for use, besides grain, horses, cattle, and sheep, which also consume grain.

When the condition of human society, in its industry and economy, is thoroughly examined, it is evident that the multiplication of the arts is the ultimate cause of the decay, as well as the progress of nations; and hence, there must be a time, when the advance of the arts—especially of all those which are not useful—is an element of weakness, a positive danger. We are far enough from supposing that our country, or such a country as Russia, is in any immediate danger from this cause; because the immense extent of *new lands* (the real safety valve of the nation,) must, for a long time, attract large numbers into the occupation of agriculture. But, civilization is like locomotion. In these days it moves, with a vastly accelerated velocity. The United States will come to maturity much more rapidly than any former nation; and, there are already certain facts which prove, beyond doubt, that we are approaching (strange as that may appear to many,) a period when the laborers in agriculture will be too few in proportion to the aggregate. We will instance here two very obvious facts.

*First*, the civic (town) population of the nation increases more rapidly than the nation. *Secondly*, the diversion of laborers from the pursuit of agriculture is in greater proportion, than the increase of agricultural laborers. We will illustrate the principles we have stated, by the subdivision of labor in England. As the *proportions* of employment

in England, have not changed materially in twenty years,—except that manufacturers have increased, we will take the subdivision of labor in England from McGregor's Statistics, giving the Census of 1831. In some future articles, we will give the results of the recent Census, and the changes in employments at different periods. The following are the proportions of families employed in three great classes, as ascertained by the Censuses of 1811 and 1831 in Great Britain:

|                                                                                        | 1811.           | 1831.     |
|----------------------------------------------------------------------------------------|-----------------|-----------|
| Families employed in Agriculture . . . . .                                             | 697,353 . . . . | 761,348   |
| Families employed in Trade and Manufactures . . . . .                                  | 923,588 . . . . | 1,182,942 |
| Families who are engaged in Mechanics, Laborers, Professions, and Annuitants . . . . . | 391,450 . . . . | 801,076   |

The sudden increase of the third class in 1831, was probably owing to enlarging the classification of annuitants, proprietors, and those who live on their income only. The proportion, as between those in agriculture and out, however, remain the same. The general results are as follows:

|                                                                | 1811.             | 1831.      |
|----------------------------------------------------------------|-------------------|------------|
| Total number of Families . . . . .                             | 2,012,391 . . . . | 2,745,336  |
| Families employed in Agriculture . . . . .                     | 697,353 . . . .   | 761,348    |
| Families employed in all other avocations . . . . .            | 1,315,038 . . . . | 1,983,988  |
| Proportion of the whole employed in agriculture . . . . .      | 34.7 p. c't.      | 28 p. c't. |
| Proportion of the whole employed in other avocations . . . . . | 65.3 “            | 72 “       |

It will thus be seen that from 1811 to 1831, the proportion of agricultural laborers diminished from 34 to 28 per cent., while those employed in the arts, trades, manufactures and professions, increased from 65 to 72 per cent. Since 1831, the latter class has doubtless increased still more; so that we may assume that in England the actual proportion of *agricultural producers* is not more than 25 per cent.; so that now, of the whole population, *one* agricultural laborer must support *three* others employed in the arts, trades, and professions, or they cannot be supported *by the food produced in that country*. What is the fact? They are *not* supported by food raised in that country; Great Britain has been an *importer of food for an entire generation*. She imports grain and breadstuffs from America, Russia, and Prussia. She imports cattle from Holland, and eggs from France! In one word, the British people neither do, nor can feed themselves. This, from being a casual fact, has now passed into a permanent one. Great Britain has become, like ancient Rome, positively and absolutely dependent upon other countries for its daily food.

How is it with other countries? France is just balancing on the verge of self-support, or dependence. The years of casual deficiency have now become very frequent, and as France is very inferior in her commercial Marine, she cannot supply herself with the same facility as Great Britain. Hence, the



bread question has been the great question in France since the Revolution, and, probably, in future will become a still more difficult problem; for France, owing to the minute subdivisions of land, is very badly cultivated. Germany is better off. Some parts of Germany have generally been exporters of grain. Spain and Italy are very nearly balanced. They seldom import, or export any great quantity of grain.

The United States and Russia are the only parts of the Christian world which are absolutely, at all times, independent, as to food. In these countries alone are the agricultural population sufficiently numerous to make self-support at all times, (Providential interference excepted,) perfectly certain. But, what are the tendencies of the United States? It is not to be concealed, that the *tendencies* of the United States are to follow in the footsteps of Great Britain, in building up towns, increasing factories, and encouraging the multiplication of the arts. In the increase of these we glory, and in every new town, and every new invention, we exult. In a new country, this is natural, and necessary. It is but a few years since we were dependent on other nations for nearly all manufactured articles. It was necessary we should encourage domestic manufactures, till we should arrive at the point at which we could, in time of war, supply ourselves with clothing, and essential machinery. But we have passed that point. We are an inventive people, and each day find new ways to employ hands in other ways, than in raising food. There are already, as we have shown, (last *Record*,) a population of 600,000 persons employed in, or dependent on Railways. We are continually introducing new arts. But, it is not in the arts that we absorb most of the agricultural population. It is in *trade*. The whole tendency of the American people is to trade. We are probably the most mercantile people on earth. In half a century we have increased our commercial marine twenty fold! We have the largest or nearly the largest tonnage of any nation; and the day is near, when Great Britain will fall behind in commercial greatness,—this young people, whose coasts are more than thirty thousand miles, and whose rivers flow tens of thousands through its gigantic vallies. But, what is the tendency of all this? Its first tendency is to build up cities and towns, and absorb all the fortune seeking portion of the community in trade. Hence, the *civic* population of this country already amounts to *one-fifth* part of the whole, and is increasing at a *far more rapid rate, than the growth of the whole country*.

For half a century past, the growth of the whole country, and the growth of its *town* population have been in the following proportions:

Growth of the whole country.....33 per cent.  
Growth of town population.....80 " "  
Growth of Agricultural population.25 " "

This is a very near approximation to the fact, and if these proportions continue, we can readily anticipate the period, when the civic population will exceed the agricultural. At the end of *half a century*, at this rate, the whole population of the nation will exceed *one hundred millions*, and the *civic population will be equal to the agricultural*. If the arts, and inventions increase at the same rate, the agriculturists will be far the smallest number, and the time be near, when population *presses against the limits of subsistence*.

We state these facts to show the tendencies of our present system of civilization, which evidently yet wants one great element of stability and permanence. The *immediate* effect of this absorption of agricultural laborers in the arts, and trades, is to *diminish the relative supply of food in proportion to the demand*; and as an inevitable consequence to raise prices, disturb finances, and embarrass governments, *the state of things which we now see*.

#### STRAIGHT LINES—DOUBLE TRACKS—INCREASE OF SPEED.

Many of those who are sometimes called "conservative," and sometimes "old fogey," would have us believe that we have reached the maximum of speed in railroading. That we have reached a point beyond which we cannot go, without greatly adding to the risk of the traveler, and the expense of his transportation. Now we would only ask such to step with us on the locomotive of any express train, and watch the operations of the engineer, and the speed at which we ride. He will observe that on a straight line of double track, with a clear view for miles ahead, we run with all the speed of the engine. An obstruction of any kind can be readily seen, a derangement of rail detected, a misplaced switch observed, and any other usual cause of accident is equally apparent. Hence the speed is only limited by the capacity of the engine and the track, and that speed frequently runs up to fifty and sixty miles an hour. Now, on curves and on single track railroads, the case is just reversed. The engineer cannot see ahead, he runs by faith, assuming that the track viewers have done their duty in keeping the track in proper order and free from obstruction, that station men and switch tenders have fulfilled all that is required of them, that the preceding train has not disarranged or broken a rail, and that the trains that are approaching him are, like himself, running in time, and observing all reasonable diligence. Under such circumstances, he *does not* tax his engine to its capacity, and if he did, he could not, with due additional resistance of curves, make the speed he did before. Even a casual observer must

acknowledge that the straighter the line, the better the time that can be made.

We say, then, that even with our present mode of laying the superstructure of our railroads, as these roads straighten their lines, build double tracks, and lessen their grades, we shall obtain a material increase in the speed, at which our express trains will run without either additional cost or risk, and with even a material decrease in both. Instead of express trains making but *thirty* miles an hour, they will make *fifty*. The time from Cincinnati to New York will be reduced from *thirty-two* hours to *nineteen*.

But this is not all and not enough. This time may be reduced nearly one-half more, and it requires but the continued exercise of that ingenuity which has hitherto been displayed to accomplish this. And the means by which this further reduction is to be, are simply these: 1st. to give greater solidity to the track; and 2d. less weight to the trains.

1st. THE TRACK.—Much attention has already been bestowed on this subject and improvements of no mean value accomplished. The flat bar ribbon rail has been abandoned *in toto* and the T rail substituted. The next improvement must be a continuous rail, bound and tied together. We do not say a continuous rail of any of the present patterns, but a *continuous rail of some pattern* that shall present a track free from the jolts and dangers of the ordinary T rail. With such a rail laid upon a suitable foundation and well ballasted we shall gain a great increase of speed.

2nd. WEIGHT OF TRAIN.—An ordinary passenger car accommodating 60 passengers weighs exclusive of its load about 10 tons, and it is believed by makers of cars that this weight will be rather increased than diminished. Now with all due deference to their opinions we believe it may be materially reduced. The materials of which the cars are made, may be changed. Instead of the heavy woods now employed for the body of the cars it is quite probable that the frame and indeed the car itself may be made hereafter of a stronger material, iron, employed in its strongest and lightest shapes. If a reduction of but *one fourth* the present weight can thus be accomplished, much will be done towards increasing the speed of trains. The saving of weight may be represented thus:

|                                                         |          |
|---------------------------------------------------------|----------|
| Five passenger and one baggage car at 10 tons each..... | 60 tons. |
| Saving one-fourth.....                                  | 15 "     |
| Diminished weight of train.....                         | 45 "     |

Instead of dragging 60 tons of cars the locomotive will only be required to drag 45 and the same power will therefore be exerted to give increase to speed.

These considerations therefore warrant us in saying that with straightened roads, double tracks, improved superstructure, and lighter cars, we shall yet make great increase in



the speed of our trains. And an increase in the speed of our trains is of immense value to the commercial and social interests of our country. It is worth all the effort that will be exerted to secure it and will amply repay the necessary outlay of capital and ingenuity.

#### BANKRUPT COMPANIES. NEW-YORK BUBBLES.

New-York city is without doubt the Babylon of this continent. Every project, good or bad is sure to meet with approvers in New-York. Every humbug receives favor from some of its myriad of citizens. In short everything where there is money to be made or lost, will find its sphere in New-York, and we do not know of any of its projects where money is not one of the main features of the enterprise. Now were these projects confined, in their class of victims, to New-York citizens alone, we of Cincinnati have but little interest to interfere. But when these speculations are meant to spread over the whole country, victimizing parties who have no means of obtaining information, save the false oaths studiously circulated by these reckless scoundrels, it becomes our province to say a word of caution to our readers.

Of all these speculative projects thus far none have been more successful or more apt to deceive than bogus insurance companies.

A few operators in New-York decide that they must make money somehow. The next question is how. Railroads cost money to locate and obtain charters. Mining stocks are down. But insurance companies cost nothing more than office furniture, and to make a deposit for a few days and take an oath that the capital is paid up. They are then ready for business. Agents are appointed, policies issued, moneys received, salaries voted. But in the meanwhile the whole of this paid up capital has been quietly withdrawn from the bank and returned to the party from whom it was borrowed, and the company's credit in bank reduced to nothing. Soon a fire occurs in a building on which they hold a risk, and the owner never recovers one cent of his insurance. Swindlers of this character do more than steal the amount of premium paid them. They often ruin parties unsuspecting enough to trust to their specious oaths, and should be dealt with summarily.

Comptroller Cook of the State of New-York, has set about exposing and breaking up these rascally swindlers, and has already made fair progress in the work. The companies thus far exposed are the Knickerbocker of Waterford, the Webster, the National Exchange, and the Tontine of New-York. The exposure of the latter has just been made public. The Tontine Insurance Company was organized as a joint stock company May 12, 1855, with a capital of \$200,000. To enable its officers to take the oath required,

the company borrowed of John Thompson \$200,000, and placed it on deposit in the Bank of the Republic. In obtaining the loan it was stipulated that the money should not be withdrawn from the bank without Mr. Thompson's endorsement and this was a condition of the deposit. The company paid Mr. Thompson between \$2000 and \$3000 for the use of his check for a few days. While the deposit was in bank the oath was taken and the certificate procured. At the time of the investigation the books of the company showed as follows.

|                  |            |
|------------------|------------|
| Assets.....      | \$5,638.37 |
| Liabilities..... | 10,450.00  |

Without a dollar of capital, which the president and secretary testified was all paid up, the company is already \$4000 in debt.

The comptroller has broken up the company but that is not enough. The officers who perjured themselves in the outset should be made amenable to the criminal laws of the state. If these gentlemanly swindlers were sure of being taught an honest way of getting a living at Sing Sing or Auburn, we should hear of fewer instances of wholesale plunder.

#### THE BELL ROPE.

We are glad to see that the bell ropes on some of our principal railroad lines are placed invariably inside the cars. Experience in this matter has been bought too dearly on many roads. The neglect of subordinates to take a little trouble has had too many fatal results. The time has come when bell ropes running over the cars, can no longer be tolerated. They are always difficult of access, and frequently utterly inaccessible. A wrong position of the bell rope is a sufficient cause for any passenger who values his life to protest against the management of a road. And if experience continues to be as expensive an article as hitherto found, it will be decidedly economical for superintendents to see personally to these little things.

#### CENTRAL OHIO RAILROAD—ACTION OF THE CITY OF WHEELING.

At a meeting of the Common Council of the City of Wheeling, held on the evening of Friday, October 19, it was decided by a vote of 11 to 8 to adopt the contract offered by the Central Ohio Railroad Company in regard to the connection of that road with eastern roads. The contract binds the company to abandon the Benwood crossing, to complete the road to a point opposite Wheeling, and to make all its western connections within the corporate limits of Wheeling. In consideration of which the city is to subscribe \$50,000 to the stock of the company, one-half in cash, and one-half in the notes of the company to be purchased by the city, to aid in procuring a bridge charter for the company, and to allow cattle and live stock to be landed any where.

#### A COMPLIMENT WHERE IT IS DUE.

We have just returned from a journey to New-York in which we have traveled nearly two thousand miles on nine different railroads taking the lightning train on each, and in all the journey we were behind time but once, in arriving at stations and that only two minutes; in each case leaving *precisely on time*. It is needless to add that in all the journey, the consciousness of being exactly on time gave a feeling of perfect security. We cannot too strongly urge the importance of exact promptitude in running railroad trains. It is the great secret of success, and the grand basis of security. Let time tables be so arranged as to give due time between each station under all contingencies of rains and winds, and then require every train to make its proper time, and we shall hear of fewer accidents, less loss of life and property, and better dividends to stockholders. One great mistake made in arranging time tables is to expect each train to do the best possible. Now what is easily possible in fair dry weather, is absolutely impossible in rainy weather and against head winds. The consequence is that in bad weather nearly every train so arranged misses its connections, leaves out of time and is constantly in danger of accident.

We are glad to say this is becoming better understood. Competing lines begin to concede little points. Time tables are arranged now with reference to making time under all circumstances, and railroad traveling is rendered safer just in the same ratio.

#### THE VIBBARD RAIL.

The practical objection to all the compound rails yet used has led to many experiments in rail making that will yet lead to a greatly improved form of rail bar. The last improvement we have seen is a rail recently adopted by the New-York Central R. R., and is styled the Vibbard rail, from the gentleman who has adopted it. The rail is a two part rail, one portion forming the base and part of the thickness of the upright and the other forming the balance of the upright and the cap. The two parts break joints, and when bolted together form a continuous rail of great solidity. The N. Y. Central R. R. is laying a portion of its double track with this rail and will give it a thorough test.

MEMPHIS & CHARLESTON R. R.—The cars on this road made their first trip to Huntsville, Ala., on Monday, Oct. 22. The citizens of the place propose an excursion to Tusculumbia, in honor of the completion of the road that far.

It is expected that the road will be opened from Chattanooga to Tusculumbia before the first of January.



## LOOK TO THE BELL ROPES.

It was supposed at the time of the late fearful accidents, when the bell ropes were found to be out of order, that such an occurrence again would be impossible, at least for a short time. It has been so supposed at the time of every accident. And yet, at the present moment, nothing is so common as to find the bell ropes out of place, and out of order. Scarcely an accident occurs which renders it necessary to use the signal cord, but that cord is found out of order, too high to reach, or rendered ineffectual by the jamming together of the cars. And in every such event we hear resolutions to have the bell rope placed within the cars, in good order, and in reach. But we are sorry to say, here the matter rests. The resolution lasts for the moment, and the next moment is forgotten, till another fearful error teaches again its importance. The travelers and the press blame the one unlucky individual on whom the fault lies in that instance, and let free the ninety and nine who daily commit the same fault, and run the same risk.

As a people, we are too careless of the precaution of accidents, and too reckless of the consequences of neglect. This trivial thing of passing the bell rope over the cars instead of through them, has cost many a life, and many thousands of dollars; and yet, we tolerate day after day and month after month. It is in vain to plead loss of time and expense. Two hours time and less than ten dollars expense, would change the outside into an inside arrangement on any cars, and where is the road that cannot better afford to repair properly every car it runs, than to loose two or three by a collision or other accident? Again we say, *look to your bell ropes*, see that they pass inside the cars, and are always accessible, and in order.

## MAKING TIME AT THE STATIONS.

Few are aware of the absolute and imperative necessity of making time at every station. One moment lost in the beginning of a run, may disarrange the whole trip. It is in vain to talk of making up. The run on the second station may be impeded with the same obstructions as that of the first, and will be as much worse than that, as it was worse than it should have been. Never lose a moment, nor with the idea that it can be made up by and bye. Such a course may do for once, but in the main must be accompanied with danger, and always with uncertainty.

**AIR LINE RAILROAD—FORT WAYNE AND PLATTE RIVER LINE.**—We learn from the *Wopello Intelligencer*, that the "first shovel full" of earth was thrown up at Wopello, on the 29th ultimo, by Dr. H. T. Cleaver. A large number of persons celebrated the event, and appear to have had a good time of it.

## Railroads.

## THE MEMPHIS AND CHARLESTON RAILROAD OPENED TO HUNTSVILLE.

Huntsville, Alabama, is one of the pleasantest and most hospitable towns of the South; but, until this day, one of the most remote from any railway communication. Within a few years the Georgia and Tennessee Railroad, through Chattanooga and Atlanta, has brought Huntsville to within 50 miles of a railway; but, there seemed no hope of getting nearer. It is, however, on the projected line of the Memphis and Charleston Railroad; it will be seen by the following article from the *Huntsville Democrat*, that the Memphis Road has completed one section to Huntsville:

The *Democrat* of the 15th inst., remarks that "the arrival of the first car within our town, on Saturday last, 13th inst., was signalized by appropriate demonstrations of joy and gratulation. The booming of canon, the ringing of bells, the shouts of the multitude, and the presence of a large number of our citizens, united with the shrill neigh of the iron horse, in testifying his arrival at our depot. We welcome him, with congratulations to our President and Directors, Engineer and Contractors, for their energy, industry and good training. That we may soon win the goal of this high enterprise by running successfully through the long heat from Memphis to Charleston, is our earnest hope and expectation."

We congratulate the city of Huntsville upon the bright era dawning upon them. That a people so long established, so refined and intelligent, so blessed with the garden country of the South, should have been so long without the improvements of the times is most remarkable. But their slow coach days are over, and well may they speak forth the joyful intelligence in sounds that make the whole country vocal. One sterling enterprise gives birth to another, is creative of wants, and the good people have set to work in the noble spirit of enterprise in repairs of their hotel conveniences. A good house of the first class is greatly needed in Huntsville, for the construction of which a joint stock company has been organized. Success to the enterprise and to other kindred improvements. Let the work but be extended to this point, and we can assure the *Democrat* that there will go up re-echoes reverberative of their salutations. By the first of January we shall have railroad facilities from this point to Tusculumbia, a distance of some 150 miles. From Memphis eastward the road is progressing rapidly, which will soon unite with portions finished this way, and then the Memphis and Charleston railroad will become a matter of fact line of communication between the East and West.

**LAKE SHIPPING.**—The *Buffalo Courier* publishes the name and tonnage of one hundred and twenty-nine vessels launched at different points on the Lakes during the present season:—

|                          |        |
|--------------------------|--------|
| Total Steam Tonnage..... | 9,055  |
| " Sails .....            | 32,511 |
|                          | 41,566 |

## LEBANON VALLEY RAILROAD.

This railroad, which is intended to unite Philadelphia and Reading Railroad with the northern Central, from Harrisburg to Sunbury, and the Penn. Railroad, the Commercial List says, will be an important auxiliary to the improvements already made to benefit Philadelphia. The points of connexion will be Reading and Harrisburg, 53½ miles distant, making the distance between Philadelphia and Harrisburg 109½ miles, or 3½ miles further than by Harrisburg and Lancaster, and the miserable Columbia Railroad. Notwithstanding this increase in distance, however, the time in going to the State Capital will be reduced from 4 hours, as is now the rate of travel, to 3¼ hours, or perhaps less, and at the same time for the most part, over a better and a safer road.

Nearly 80 per cent. of the Lebanon Valley Railroad, as we learn from the Chief Engineer, Richard B. Osborn, Esq., is in straight lines, while the whole amount of curvature is less than 2½ circles, and the radii employed almost exclusively consists of from one to two and a half miles in length. The maximum gradient, undulates in short stretches, is about 26 feet per mile—nearly one-fourth of the whole being a level bed. The total ascent westward are 495 feet, and descent 441 feet, making Harrisburg only 54 feet higher than Reading, so the reader can form an intelligible idea of the peculiar advantages of the route.

In April, of last year, the sod was first broken, and the heavier parts of the line placed under construction. Since that period the work has steadily progressed, with a force averaging 650 men per deim, and at this time full one third of the whole excavation is finished, leaving but about two and a half million cubic yards yet to be removed. The present force is about 1000 workmen, and orders have been issued by the Directors, to increase the number to 1500, which is being done, so as to push the work forward with all possible despatch, in view of completing 22 miles of the road, from Reading to Lebanon, and having it in running order by June or July, 1856, and the whole line to Harrisburg early in 1857.

The most formidable barriers are the Schuylkill Viaduct, at Reading, which will carry the road over the Schuylkill river, and the Union Canal, 980 feet long, and 70 feet above the river. This structure is being built of nine brick arches of 30 feet span each, and four spans of iron and timber, from 140 to 163 feet each. Twelve of the thirteen piers have been founded, and eight are already built to their full height; the Swatara Viaduct, eight miles east of Harrisburg, which will cross the Swatara River and Union Canal, in Dauphin County. This is composed of six arches, of 70 feet span, each executed in brick on cut stone piers. The grade of the railroad is about 50 feet above the river, and its construction will probably require until April, 1857. The third heavy section consists of a cut of upward 7000 feet long and 30 feet in depth, and contains about 300,000 cubic yards, of which nearly one-sixth is rock. About 80,000 yards have already been moved, and arrangements have been made to place large forces, iron rails and wagons, on the work to facilitate the progress. This, it is believed, can be finished by April, 1857.

The Lebanon Valley Railroad, with a single track of heavy iron, and suitable si-



dings and passing points, is estimated to cost \$2,400,000. The sum of \$664,000 has already been expended on works of construction, land damages and purchase of iron. The remainder of \$1,736,000, it is confidently believed, will be sufficient to finish the work as estimated. The road will connect at Lebanon with the Cornwall Road, extending to the great Cornwall ore banks, which contain forty million tons of iron ore above water level, and which in itself would warrant the construction of a single track road between Harrisburg and Reading. It passes through a valley of extraordinary fertility, which has a large surplus produce to send to market annually, and which is now the highway from the West and South, for large droves of horses, black cattle and sheep.

The express trains on the Reading Railroad, now occupy less than two hours in making the distance from Philadelphia to Reading. One hour and a quarter will be a safe speed for such trains, on the 53½ miles of the Lebanon Valley Road, reducing the time between Philadelphia and Harrisburg to less than 3¼ hours.

**RAILROADS IN GERMANY.**—There are in Prussia thirty railroads finished and in operation. The most important of these are the Eastern, and those of upper and Lower Silesia, which count nearly 650 miles, and put Berlin in direct communication with the Russian frontiers on the Baltic and in Poland. Then come the roads from Berlin to Hamburg, Berlin to Cothen, Cologne to Minden, Berlin to Magdeburg, and Magdeburg to Leipsic, comprising in the aggregate about the same number of miles. The other twenty roads make up in all less than 1,000 miles.

These 2,290 miles of railroad now in operation have been built at a cost of \$145,000,000, a little more than \$63,000 per mile. They are much cheaper than the railroads of Belgium, which cost \$90,000 per mile, and very much cheaper than the Chemin du Nord, which was built at an expense of \$123,000 per mile. The thirty companies of Prussia had in 1853 724 locomotives, 1,539 passenger and 11,793 baggage cars. The number of passengers that year was 10,977,849; the freight amounted to 5,462,445 tons. The entire receipts were \$15,000,000, of which \$6,000,000 were from passengers, \$8,000,000 from freight, and nearly 1,000,000 from extraordinary revenues. The expenses reached the figure of \$7,500,000 viz: \$2,400,000 for repairs and superintendence \$4,800,000 for running expenses, \$400,000 for general expenses. A reserve fund paid \$400,000 of these expenses; so that their net earnings were \$7,200,000. Besides these, Prussia has nine more lines in constructions which when finished, will have an aggregate length of 35 miles. Among these are the road from Breslau to Posen, and that from Munster to Osnabruck.

In the rest of Germany there are 33 lines, the total length of which is 3,213 miles; accounts, however, have been received from only 25 of these lines, amounting to 2,966 miles. The cost of these roads was, in 1853, \$210,000,000, or about \$71,000 per mile. The greater portion of these lines is contained in Austria, Bavaria, Saxony, Hanover, Wurtemberg, Baden, and Brunswick. The longest road is the one connecting Munich, Augsburg Bamberg and Nuremberg to Ulm and Schweinfurt; it is 430 miles in length. Then come the four principal Austrian roads, with an aggregate of nearly 1,000 miles. Hanover has in

operation 250 miles; Saxony, 350; Wurtemberg, 150; Baden, 175, and Brunswick, 75. There were transported on these roads in 1853 16,344,988 passengers and 4,913,000 tons of freight—a considerable falling off in freight from 1852 and a decrease of about 3,000,000 in passengers. The receipts on these 25 roads, with the exceptions of these from Vienna to Bruck and to Colognitz, were \$19,000,000, 000,000 less than in 1852. Of this \$19,000,000, \$7,200,000 was derived from passengers, \$11,000,000 from freight, and \$800,000 from other sources. The expenses amounted to \$10,400,000, leaving their net earnings at \$8,600,000.—*New York Tribune*.

**MOBILE & OHIO RAILROAD.**—On Monday last, a large number of the citizens of this county assembled at the Court House, to take into consideration the present crisis of the Mobile and Ohio Railroad. It is known to our readers that the first thirty miles of the road north has to be ready for the iron by the 11th of February next, or the State aid of \$10,000 per mile will be lost. The Chief Engineer informed us the other day that, owing to the backwardness of stockholders and taxpayers in paying up, the contractors were compelled to suspend operations. The meeting on Monday was for the purpose of laying these facts before the people and urge immediate action before it is too late. Hon. Milton Brown, William H. Stephens and Samuel McClanahan, Esqrs., made stirring appeals to the public-spirited citizens of Madison, and with the happiest results. We feel authorized in saying, that if those who are in arrears for their stock and railroad tax will come to the rescue, all will be well. We believe they will nobly come up and discharge their obligations, and thus secure the early completion of this great road.—*West Tennessee Whig*, Oct. 5th.

**DETROIT AND MILWAUKEE RAILROAD.**—This road is composed of the Detroit and Pontiac Railroad extending from Detroit to Pontiac, 25 miles, and the Oakland and Ottawa Railroad (in progress) 100 miles from Pontiac to Grand Haven. The consolidation of these interests was effected on the 1st of January last. On the first of October 25 miles more were put in operation to Fentonville, making 50 miles in all. The Company expect to have completed early in the spring of '56—30 miles more—to Coruna, being 80 miles from Detroit. At Grand Haven, the mouth of Grand river, this road when completed, will form a connection with a line of steamers, plying between that point and Milwaukee. It is believed that the distance can be performed from Detroit to Milwaukee in from 10 to 12 hours, making a saving in time (via New York and Erie and Great Western Canada Railroad) of 4 1-2 hours and \$3 70 in fare—the distance saved between New York and Milwaukee by this route being 176 miles. The distance from Grand Haven to Milwaukee via steamers is 80 miles. Mr. Walker, the President of the Company is now in Europe for the purpose of negotiating its bonds.—*Railroad Journal*.

**THE PITTSBURG AND CONNELSVILLE RAILROAD.**—At a meeting of the Alleghany (Pa.) Councils on last Thursday evening, the Committee on ordinance subscribed 5,000 shares of the capital stock of the Pittsburgh and Connelville Railroad. A memorial from Oliver W. Barnes, President of the road, was also read, stating that \$1,000,000 had been subscribed by Baltimore, \$750,000 by Allegheny county, \$500,000 by Pittsburg, and \$625,000 by individuals. Also that the city of Cumberland and the Baltimore and Ohio Railroad would probably subscribe largely. On the adoption of the ordinance, there were three negative votes, and the ordinance was laid over.

**HENDERSON & NASHVILLE RAILROAD.**—The question—"are we to have a railroad among us?" is now definitely settled. At the meeting of the the Board of Directors, on Monday and Tuesday last, steps were taken that will not only put this important enterprise beyond a possibility of failure, but in process of speedy completion. Whatever may have been the past action of the Board, whether right or wrong, judicious or imprudent, suffice it to say that it has gone to work now in good earnest, and on proper and substantial basis, to build the road.

The reliable resources of the company were first ascertained, and the lettings were made only commensurate with the amount of funds that could be brought into practical use as fast as the work progressed. In fact, the Board have already much more means at their command than will be required on the present lettings, with a certainty of largely increased subscriptions on the First Division. Contracts were made with responsible parties to prepare the road for the iron, on the first thirty miles from this city, including all the heavy work of the First Division, on which over \$100,000 worth of work has already been done. The Company has on hand \$200,000 in actual cash and solvent cash stock, beside \$25,000 in stock to be paid in work. In addition to the resources above specified, the Company has large real estate subscriptions, which will be readily convertible into cash as the road progresses, and also a valuable interest in mineral lands, many of which are known to be rich in Coal and Black Band Iron ore, of the very best qualities, and all accessible and workable at trifling cost.

The Second and Third Divisions of the line are also in a prosperous condition as regards stock, and only await energetic action directed to the work of the First Division to be at once put under contract and built.—*Henderson Patriot*, Oct. 6th.

#### WISCONSIN RAILROADS.

The receipts on the Milwaukee & Mississippi Railroad for the week from Oct. 15, to the 21st was \$26,724.53.

For the previous 12 working days the receipts are \$45,437.26—making for the month, thus far, \$72,161.79, with 9 working days left. Last year the total receipts for October were \$76,776.04. This year they will hardly fall short of \$110,000.

The La Crosse and Milwaukee Railroad is also doing a fine business; since its extension to Woodland, 43 miles from our city, the passenger travel has increased greatly. Yesterday there were three large cars filled, both on the in and out train; and on Saturday there were seventy passengers taken from the western terminus to Horicon, with good weather another month will see the Railroad extended to the latter point.

The Milwaukee and Watertown Railroad is also doing well. Indeed its freighting business exceeds the present capacity of the road. The engineers are at work locating the line, east of Watertown, and the road will be extended to Columbus and beyond, as rapidly as may be.

The Lake Shore Railroad is crowded with travel. The piling of their track is now completed up to the depot grounds in the Fifth Ward and the graveling was commenced yesterday. With favorable weather the work will be finished in a week or two, when the trains will run up nearly to Wheeler's Warehouse in the Fifth Ward.



Those who contrast the *actual* business of these several roads with the most favorable anticipations expressed in regard to them a year ago, cannot but be gratified with the result. And yet our city is only just beginning to feel the influence of these improvements. Another year will tell a still better story.—*Milwaukee Sentinel*.

**ROCK ISLAND AND PEORIA RAILROAD Co.**—At a meeting of the Stockholders held at Rock Island, on Saturday last, the following persons were elected officers of the Company:

President—Benjamin Harper, Rock Island; Vice President—Onslow Peters, Peoria; Secretary—Ben Graham, Henry County; Treasurer, 1st Division—Wm. Baily, Rock Island; 2d Division—N. B. Curtis, Peoria; Chief Engineer—W. G. Wheaton, Peoria; Attorneys—Joseph Knox, Rock Island; Johnson and Blakely, Peoria; M. Shallenberger, Stark County.

#### RACINE & MISSISSIPPI RAILROAD.

The Racine & Mississippi Railroad is but just opened, and was fortunately not commenced until the errors of your Galena road, and the greater ones of the Milwaukee and Mississippi road had become apparent. The Racine has been built as a road ought to be. From just out of the city to the Fox River at Burlington, to which point the trains now round it as an air line road, as straight as an instrument can make it, the distance being twenty-six miles; thence it varies by air line routes from village to village until it reaches Beloit on the Rock river, at the Illinois State line; thence *via* Rockton and Freeport to the Mississippi at Savanna, from whence it is to be direct to Iowa City.

The country through which it passes proves why it has been built, for a richer one can no where be found. The immense crop now awaiting access to market gives an insight into the necessity of Western Railroads, and this alone explains the fact. The grading is nearly completed to Beloit. Ten miles further is to be let on Monday next. All of the iron and other materials to build and equip the road to Rockton (72 miles) are purchased and on the way from New York. I am informed they are nearly all paid for and not a mortgage bond sold yet. This mystery was nearly solved in my mind upon being informed that the Company have a subscription to their capital stock of about \$1,500,000. Excepting that subscribed by the city of Racine and the towns and villages on the line, the rest is by those at either end of the line and farmers and others.

#### EAST TENNESSEE & GEORGIA R. R.

**STATE DIRECTORS.**—The Governor has appointed the following named gentlemen Directors, on the part of the State. In the East Tennessee and Georgia Railroad Company:

J. G. M. Ramsey, Knox county.  
John Jarnagin, Anderson county.  
James A. Coffin, and Henry H. Stephens, Monroe county.  
R. M. Edwards, Bradley county.  
Simeon D. Reynolds, Roane county.  
James H. Reagan, G. W. Bridges, Thos. Rodgers, McMinn county.—*Athens Post*.

## Miscellaneous and Mechanical.

### OBTAINING LITHOGRAPHS BY THE PHOTOGRAPHIC PROCESS.

BY PROFESSOR RAMSEY.

"On a Process for obtaining Lithographs by the Photographic Process," by Professor Ramsey. Professor Ramsey described a process by which Mr. M'Pherson, of Rome, had succeeded in obtaining beautiful photo-lithographs, specimens of which had been hung up in the Photographic exhibition in Buchanan-street. The steps of the process are as follows: 1. Bitumen is dissolved in sulphuric acid, and the solution is poured on an ordinary lithographic stone. The ether quickly evaporates, and leaves a thin coating of bitumen spread uniformly over the stone. This coating is sensitive to light, a discovery made originally by Mr. Niepe, of Chalons. 2. A negative on glass, or waxed paper, is applied to the sensitive coating of bitumen, and exposed to the full rays of the sun for a period longer or shorter according to the intensity of the light, and a faint impression on the bitumen is thus obtained. 3. The stone is now placed in a bath of sulphuric ether, which almost instantaneously dissolves the bitumen, which has not been acted upon by light, leaving a delicate picture on the stone, composed of bitumen, on which the light has fallen. 4. The stone, after being carefully washed, may be at once placed in the hands of the lithographer, who is to treat it in the ordinary manner with gum and acid, after which proofs may be thrown off by the usual process. Professor Ramsey then proceeded to state that the above process, modified, had been employed with success to fetch plates of steel or copper, without the use of the burin: 1. The metal plate is prepared with a coating of bitumen, precisely in the manner noticed above. 2. A positive picture on glass or paper is then applied to the bitumen, and an impression is obtained by exposure to light. 3. The plate is placed in a bath of ether, and the bitumen not acted upon by light is dissolved out. A beautiful negative remains on the plate. 4. The plate is now to be plunged into a galvano-plastic bath and gilded. The gold adheres to the bare metal that refuses to attach itself to the bitumen. 5. The bitumen is now removed entirely by the action of spirits and gentle heat. The lines of the negative picture are now represented in bare steel or copper, the rest of the plate being covered by a coating of gold. 6. Nitric acid is now applied as in the common etching process. The acid attacks the lines of the picture formed by the bare metal, but will not bite into the gilded surface. A perfect etching is thus obtained.

**THE MEXICAN BOUNDARY COMMISSION.**—We learn from the *San Antonio Texan*, that Major Emory, the U. S. Boundary Commissioner under the Gadsden treaty, accompanied by his party arrived in San Antonio on the 24th ult.

The commission completed the whole line from the beginning to the end, with the exception of some topography on the western end of the line, and to accomplish which a party under Lieut. Michler, Assistant Surveyor, was left behind.

The line throws into the United States both the passes to the Pacific, that of San Luis range of mountains, and also the pass of the Gaudaloupe mountains. The San Luis range of mountains is the same as the Sierra Madre, and south of the line there is no known pass in those mountains, until you reach the valley of Mexico, which is suitable even for any ordinary wagon road!

The surveys show these passes practicable for railways; and we learn from Major Emory, that the country around is undoubtedly rich, beyond what we may have any idea, in minerals, such as iron, copper, gold, and silver; but the two last metals have not been discovered except imbedded in rocks, and doubtless will require time and capital to develop. Water is not very plentiful, but there is a sufficient quantity for travelling purposes; there is also grass for grazing in a sufficient abundance to support an agricultural com-

munity and those engaged in mining operations—in fact as a grazing country it is unsurpassed, and for an evidence for this fact, we have only to see the fine condition of the 150 animals which have just returned from that country.

#### INTER-OCEANIC SHIP CANAL.

Notwithstanding the general impressions that have of late years prevailed, that the Atlantic and Pacific Oceans could not be connected by canal at such an amount of cost as would warrant it being undertaken, surveys that have quietly been in progress upwards of three years, now demonstrate conclusively to the contrary.

Various lines have been run by different Engineers, in the Province of Choco, in New Grenada, and it is now a matter of certainty that the long sought for pass has been discovered and measured.

This route is known by those engaged in the enterprise as the Atrato and Turando route.

Some four years or more ago, a number of merchants in New York—among them Messrs. James Bellknap, and Frederic Avery, employed engineers to explore the Atrato line, which lies about one hundred and fifty miles south of the Panama Railroad; but the result of the surveys was not altogether satisfactory, in consequence of the head waters of the streams having alone been examined. The engineers, however, engaged in this duty, were not instructed to seek in other directions, and no blame is attached to them.

F. M. Kelley, Esq., however, who was one of the original party of merchants, differed with his associates in the opinion he formed of the enterprise, and when all the others abandoned the undertaking as hopeless, he pushed on alone.

Having employed J. C. Lane, Esq., Civil Engineer, to examine anew some of the passes of the tributaries of the Atrato, that engineer returned home, reporting that the *Turando*, a branch of the Atrato, evidently crossed, or very nearly crossed the dividing ridge through a very low pass over a much shorter route than that by the way of the head-waters of the Atrato, as was originally contemplated.

Unfortunately for him, he had caught the Chagres fever on his way down, and just as he was about to realize his expectations, by instrumental measurement, he was prostrated and had to return.

Mr. Kelley thus encouraged, and having the additional evidence of the great Humboldt's opinion in his favor, sent out immediately Cotton Kennesh with another corps of Engineers, to reach the ground by way of the Pacific.

Having crossed the Isthmus and taken ship, they coasted down and discovered a good harbor, and marched inland to the Turando through the pass from the Mary's River.

The result of all these efforts, which reflect the greatest credit on those engaged on the work, is that a canal can be constructed from ocean to ocean *without Locks* or any other impediment.

It is proposed that the canal shall be two hundred feet wide and thirty feet deep at low water—thus affording capacity sufficient for the largest class of vessels or steamboats to pass one another.

We have examined the maps and instrumental profiles and cross sections of the work. The enterprise is without doubt feasible, and can be constructed at such a cost as will admit its being built at once.

The route is as follows:—Entering the mouth of the Atrato some slight improvements have to be made at the bar; there is, however, an excellent harbor here: From the mouth, the Atrato ascended 62 miles, with an average depth of water, not less than *fifty feet*, and from a quarter of a mile to two miles wide.

The route then lies up the Turando river for



thirty-eight miles, which is now navigable for steamers of twelve feet draft of water. This river will require dredging. From here to the Pacific, the line passes through open cuttings in rock twenty-five miles, and a tunnel of three and a quarter miles in length, to an excellent harbor, capable to being made equal to any in the world for safety.

The point of confluence of the Atrato and Turando rivers being about equi-distant from the oceans, and being only fifteen feet above the mean tide, the currents in the artificial work will be only the same as in the Atrato river at the present time, which is easily descended, being about equal to the Delaware below the city.

An estimate of the cost of this work, predicated upon the preliminary lines which have been run, have been made by Edward W. Serrell, Engineer, at Mr. Kelley's request, and it appears that the entire construction can be accomplished for less than \$150,000,000. Mr. Serrell has also made an estimate of the value of the Canal to the trade of the world, based upon the commercial statements prepared by Mr. Stone of the *Journal of Commerce*, from the official returns in the Treasury Department, by which it appears that the present trade of the world, without any allowance for increase, would pay an interest of twelve per cent. upon \$200,000,000, and then save six per cent. upon \$228,600,000 to itself.

It will, of course, have been observed by the foregoing, that a vessel can pass through the Canal in one day, and when it is considered that on the voyage from San Francisco to New York, the saving in distance is fifteen thousand miles, the figures above, which refer to the whole world, cannot be too large.

Our Government has been asked to send proper Engineer officers to verify these surveys, and we hope that the discouragements of the route explored by Lieut. Strain will only serve to urge the Government to try where there is a moral certainty of success. It is sometimes as important to know what will not do as what will. By both these surveys it is believed the whole matter will be known.—*Pennsylvanian*.

#### A GLANCE AT PARIS.

The Harpers have just published a very entertaining work, entitled "Parisians Sights and French Principles." It is from the pen of an American, and furnishes much information. Paris is reported to have a population of more than a million of souls, including about sixty thousand strangers. 800,000 are in an unsatisfactory or wretched condition. 150,000 are constantly in the hospitals or receiving charity from other sources. Each of the above 800,000 is supported by benevolence on an average two years out of thirty-five, their average existence. There is one indigent person to every 12¾ inhabitants. There is 64,816 master workmen, and 342,530 work people, including 240,000 men, 112,000 women, and 26,530 children. The average wages of the men 75 cents a day; of the women 33 cent. There are 80,000 domestics, who average less than 20 cents. The worst paid workmen are the cotton spinners, who gain only from 20 to 40 cents per day. Women often not over 15 cents. The daily cost of food to journeymen is from 20 to 30 cents, and of lodging, from \$1 to \$1.25 per month.

The lodging of the poorest class are of the most wretched description. The proprietor frequently provides nothing but straw or rags for beds, and no other furniture. The chambers are unventilated, unclean, and crowded with the miserable of both sexes, who pay as dearly for these filthy lodgings as for those with some pretensions to com-

fort. Those who pay from five to eight francs per month are entitled to a dish of soup each evening, and to have a shirt washed once a week.

The figures of the Savings Banks show that one workman out of five deposits something each year, and of domestics one in two. Sums as small as a franc are received.

In France there are 4,500,000 paupers, and four million bordering on this condition.

There are some facts relative to French productive industry not without interest. The manufactures of Paris of all kinds produce yearly merchandize to the value of \$268,000,000. Of the miner articles, which find their way to every quarter of the globe, we find the amount as follows:—Infants' toys, \$800,000; buttons, 1,200,000; canes and whips, \$600,000; fans, \$600,000; artificial flowers, \$2,200,000; gloves, \$2,800,000; umbrellas, \$1,400,000; perfumery, \$2,000,000; pianos, 2,200,000; memorandum books, \$1,200,000; corsets, (of which 1,200,000 are annually exported,) 3,000,000; baby, table, and toilet linen, to the fineness of which the French ladies attach even more importance than the quality of their silks and satins, \$5,400,000.

#### THE GREAT AMERICAN CAR BRAKE.

Wm. Loughridge, of Weavertown, Washington County, Md., patentee of a railroad brake, which is not only the great want, but wonder of the age. The admirable invention is placed where it ought to be, in the hands and under the control of the Engineer of the train, where it is applied by means of a lever to every wheel in the train with equal and wonderful power. It requires to be seen to be fully appreciated, and to understand how a train driving at the rate of thirty miles an hour is checked without sensible jar, in from six to twelve seconds.

Mr. Loughridge informs us that after four months' practical experience, the following results have been accomplished.

1. The engineer can at any speed apply or reverse all the brakes in the train in twelve feet run on the track.
2. Every wheel in the train receives an exactly equal pressure.
3. The brakes are applied to the hindmost car in the train first, which stretches out the train, and keeps the bumpers apart until the engine stops.
4. The power applied to the brakes can be graduated from one pound up to locking the wheels.
5. The machine can be set to throw off the motive power at any desired point, preventing the possibility of locking wheels unless desired.
6. The hand brakes work in combination with the new brake, or separate, if desired.
7. The cars can be drilled or turned as usual.

The following is the nearest technical description we could gather from the patentee.

A chain barrel four feet long hangs behind the driving wheel of the engine; the left end has a permanent bearing—the right end hangs in a swinging lever, which passes up in front of the engineer. On the right end of the chain barrel there constructed a friction wheel, fourteen inches in diameter, with a groove in it to fit the flange of the driving wheel. On the left end of the chain barrel there is constructed a double ratchet wheel, with two pawls, one for the forward and the other for the backward motion. From the

chain barrel a chain passes back through the train, acting on all the brakes in a new and novel manner. When the brakes are to be applied, the engineer pulls back the lever, which forces the friction wheel against the driving wheel, and sets the chain barrel to revolving; this folds up the brake chain, which is held by a pawl and ratchet. When the brakes are to be relieved, the pawl is pulled out of the ratched, when the tension of the chain unfolds the chain barrel, and the brakes are relieved.

#### AN EXCITING INCIDENT.

On Tuesday, after the Blairsville train on the Pennsylvania Railroad, (on which Loughridge's great American Car Brake is constructed,) had got under full headway, beyond East Liberty, the engineer, Mr. Wm. Willis, espied something on the track which he took to be a lost package. When within about 175 feet of it, he discovered it was a little child about fourteen months old, sitting between the cross-ties. With astonishing rapidity he struck the steam-lever and cut off the steam, drew back the brake lever and applied all the brakes. The fireman, James Snyder, got down on the step at the side of the engineer, awaiting the moment that the momentum of the train was sufficiently checked to permit him to jump off, and run ahead to snatch the child from the track, which soon occurred; when, by a superhuman effort, he gained inch by inch on the engine, and the babe was picked up safely and handed over to its father. The engineer performed his duty so well, that the train was brought to a dead stop within fifteen feet of where the child was sitting.

The sight of the infant, the deliverance to its parent, the running of the men, the movements of the engineer, the screeching of the brakes, and sparks of fire that flew from the track, rendered it a moment of the most intense excitement—one that will be held in pleasant remembrance by those who, by their extraordinary presence of mind, saved the child from an awful death.

We congratulate Mr. Loughridge in this, the first severe test of his great invention, for all present agreed that with the ordinary brake no earthly effort could have saved the innocent and helpless child.

**RAILROAD IRON.**—The depreciation of rails is due to the weight borne upon them, having regard to velocity. As the ends of rails universally fall first, it is reasonable to measure the depreciation by mass or weight borne into velocity; and the traffic on our most important roads in Massachusetts does not vary sufficiently to render the average durability inapplicable to either of them. The life of bridges and cross-ties is also subject to a general law, sufficiently accurate for the class of roads to which we allude. The same may be said more strictly of equipment. The average serviceable use of rails does not exceed twelve years. Once in every twenty years upon an average, they require renewal. They depreciate 8 1-3 per cent. per annum. This may not be apparent, to any considerable extent during the first few years; but the aggregate depreciation we have estimated will not fail to disclose itself at the end of the period named. Welding will make the rails safe and the track surface more perfect, but the rail will fail entirely, end or middle, in an average use of twelve years. The cost per ton of re-rolling exclusive of transportation, \$25. The average depreciation per annum per ton is then \$2 08.



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

| COMPANY.                                                   | NATURE OF BOND.                     | INT. DUE.     | OFF'D. ASK'D. | SHS. OFF'D. ASK'D. |
|------------------------------------------------------------|-------------------------------------|---------------|---------------|--------------------|
| Alabama and Tennessee.....                                 | 1st mortgage, convertible in 1872   | 7 1872        |               |                    |
| Baltimore and Ohio.....                                    | Transferable. Taxed.                | 6 1885        | 79%           | 100 56 58          |
| Do do.....                                                 | Coupons. Not Taxed.                 | 6 1875        |               |                    |
| Do do.....                                                 | " " " "                             | 6 1880        |               |                    |
| Do do.....                                                 | " " " "                             | 7 1860        |               |                    |
| Do do.....                                                 | " " " "                             | 6 1885        |               |                    |
| Bellefontaine and Indiana.....                             | 1st mortgage, convertible.          | 6 1866        | 98            | 50 38              |
| Buffalo and Penn. State Line.....                          | 1st mortgage, not convertible.      | 6 1866        |               |                    |
| Chicago and Rock Island.....                               | 1st mortgage, convertible.          | 7 1870        | 95%           | 98 90 92           |
| Chicago and Mississippi.....                               | 1st " " " "                         | 7 1862        |               |                    |
| Do do.....                                                 | 2d " " " "                          | 7 1874        | 65            |                    |
| Chicago and Aurora.....                                    | 1st " " " "                         | 7 1866        |               |                    |
| Cincinnati, Newcastle and Mich. Real Estate.....           | " " " "                             | 7 1859        |               |                    |
| Cleveland, Columbus, and Cin'tl 1st mortgage, convertible. | " " " "                             | 7 1859        | 100           | 107 111            |
| Do do.....                                                 | do No mortgage, convertible.        | 7 1855        |               |                    |
| Cleveland and Mahoning.....                                | " " " "                             | 7 1861        |               |                    |
| Cleveland, Paines, & Ashtabula 1st mortgage.               | " " " "                             | 7 1861        | 100           |                    |
| Do do.....                                                 | do 2d " not convertible.            | 7 1861        |               |                    |
| Cleveland and Pittsburgh.....                              | 1st " convertible.                  | 7 1860        |               | 67 70              |
| Do do.....                                                 | 1st " 2d sec. convertible.          | 7 1-73        |               |                    |
| Cleveland and Toledo.....                                  | 1st mort. not conv. '73.            | 7 1863        | 93 94         | 50 68 70           |
| Cleveland, Zanesville, & Cin'tl.....                       | " " " "                             | 7 1867        |               | 74 78              |
| Cincinnati, Hamilton & Dayton 1st mortgage " till 1855.    | " " " "                             | 7 1880        | 85 86         |                    |
| Do do.....                                                 | do 2d mortgage.                     | 10 5 & 10 y's | 42 43         |                    |
| Cincinnati, N. C. & Michigan.....                          | 1st mortgage, real estate, conv.    | 8 1859        |               | 12 14              |
| Cincinnati Western.....                                    | " " " "                             | 7 1862        | 68 69         | 20 32              |
| Cincinnati, Wil. and Zanesville 2d " " "                   | " " " "                             | 7 1862        |               |                    |
| Cincinnati, Ind. and Chicago.....                          | Real Estate.                        | 8 1859        | 38 41         | 11 15              |
| Cincinnati and Chicago.....                                | 1st mortgage, convertible.          | 7 1862        | 75 76         | 7 14               |
| Columbus, Piqua and Indiana.....                           | do do 2d " "                        | 7 1859        | 60 61         |                    |
| Columbus and Xenia.....                                    | 1st mortgage, convertible.          | 7 1859        | 80            | 90 93              |
| Covington and Lexington.....                               | 2d " " till 1862.                   | 7 1883        | 66 67         | 50 23 28           |
| Do do.....                                                 | Income.                             | 6 1851        | 50 51         |                    |
| Dayton and Michigan.....                                   | 1st " " " "                         | 7 1867        |               | 50 20 22           |
| Dayton and Western.....                                    | 1st " " " "                         | 7 1862        |               | 22 23              |
| Dayton, Xenia and Belpre.....                              | 1st " " " "                         | 7 1864        | 26 30         |                    |
| Eaton and Hamilton.....                                    | 1st mortgage.                       | 7 1862        | 60            | 25 45 50           |
| Erie and Kalamazoo.....                                    | 1st mort. guaranty Mich. S. R. R.   | 7 1862        |               |                    |
| Evansville and Crawfordsville.....                         | 1st mortgage.                       | 7 1862        | 80 81         |                    |
| Fort Wayne and Southern.....                               | " " " "                             | 7 1862        |               | 12 14              |
| Franklin and Warren.....                                   | " " " "                             | 7 1862        |               |                    |
| Galena and Chicago Union.....                              | Pledge of second section, conve.    | 10 1853-6     | 92%           | 100 115 118        |
| Hillsboro and Cincinnati.....                              | 1st mort.                           | 7 1878        | 60 61         | 50 25 27           |
| Illinois Central.....                                      | 1st mortgage, not convertible.      | 6 1875        | 76 78         | 100 94 96          |
| Do do.....                                                 | Freeland.                           | 7 1866        | 88 89         |                    |
| Indiana Central.....                                       | 1st mortgage, convertible.          | 7 1866        | 63 75         | 50 45 50           |
| Do do.....                                                 | " " " "                             | 10 1857       | 80 80         |                    |
| Indianapolis and Bellefontaine.....                        | 1st " " " "                         | 7 1860-1      | 75 75         | 50 50 50           |
| Indianapolis and Cincinnati.....                           | 2d mortgage.                        | 7 1861        | 75 80         | 50 60 63           |
| Indianapolis and Lafayette.....                            | 1st " " " "                         | 7 1861        |               |                    |
| Jeffersonville.....                                        | 1st " not " " "                     | 7 1867        |               | 50 36              |
| Junction (Ohio).....                                       | 1st " " " "                         | 7 1867        |               | 50 11 15           |
| Do Indiana.....                                            | Real Estate.                        | 10 1864       | 70 72         | 10 13              |
| La Crosse and Milwaukee.....                               | 1st mortgage, not convertible.      | 6 1883        | 77 82         | 100 95 97          |
| Little Miami.....                                          | do do " till 1855.                  | 7 1861        | 83 85         |                    |
| Louisville and Nashville.....                              | " " " " " "                         | 7 1858        |               | 100                |
| Lyons, Iowa, Central.....                                  | 1st mortgage, convertible.          | 7 1873        |               |                    |
| Mad River and Lake Erie.....                               | 1st mortgage, convertible till 1855 | 7 1855-6      | 75            | 50 26 30           |
| Do do.....                                                 | do 2d " " " "                       | 7 1866        | 75            |                    |
| Do do.....                                                 | Dividend.                           | 7 1860        | 75            |                    |
| Madison and Indianapolis.....                              | 1st mortgage, convert. after 1853.  | 6 1861        |               | 50                 |
| Marietta and Cincinnati.....                               | Domestic Bonds.                     | 5 1858-00     | 95 99         | 50 18 25           |
| Do do.....                                                 | do " " " "                          | 5 1870-5      | 97 100        |                    |
| Hillsboro and Cincinnati.....                              | 1st " " " "                         | 5 1890        |               |                    |
| Maysville and Big Sandy.....                               | " " " "                             | 6 1873        |               | 50                 |
| Maysville and Lexington.....                               | 1st mortgage, convertible.          | 6 1873        |               |                    |
| Memphis and Charleston.....                                | " " " "                             | 8 1860        | 97            | 93 95              |
| Michigan Central.....                                      | No mortgage, convertible.           | 8 1860        |               |                    |
| Do do.....                                                 | " " " "                             | 8 1855-6      |               |                    |
| Do do.....                                                 | " " " "                             | 8 1857-8      |               |                    |
| Michigan Southern.....                                     | 1st " " " "                         | 7 1860-90     | 100           | 91 93              |
| Milwaukee and Mississippi.....                             | 1st " " " "                         | 8 1862        |               |                    |
| Mobile and Ohio.....                                       | 1st mortgage 6s. 1854               | 6 1854        |               |                    |
| Nashville and Chattanooga.....                             | " " " "                             | 6 1854        |               |                    |
| New Albany and Salem.....                                  | mortgage on 1st section.            | 10 1858-62    |               | 50 14 18           |
| Do do.....                                                 | do " on other sec. con.             | 8 1864-75     |               |                    |
| New Castle and Richmond.....                               | 1st " convertible.                  | 6 1873        |               |                    |
| New York Central.....                                      | " " " "                             | 7 1867        | 103 105       | 91 92              |
| New York and Erie.....                                     | 1st mortgage, not convertible.      | 7 1871        | 77 79         | 100 49 50          |
| Do do.....                                                 | do 2d " convertible.                | 7 1883        | 93 97         |                    |
| Northern Cross, Ill.....                                   | 1st mortgage, convertible.          | 8 1873        |               |                    |
| Northern Indiana.....                                      | 1st " not convertible.              | 7 1861        | 98            |                    |
| Do do.....                                                 | do " Goshen line.                   | 8 1868        | 92 84         | 91 93              |
| Do do.....                                                 | Construction Bonds.                 | 7 1861        | 61            | 15 20              |
| Ohio Central.....                                          | 1st mortgage, convertible.          | 7 1880        | 48 53         | 7 8                |
| Ohio and Mississippi.....                                  | 2d " " " "                          | 7 1867        |               | 50 14 18           |
| Ohio and Indiana.....                                      | 1st " " " "                         | 7 1865        |               |                    |
| Ohio and Pennsylvania.....                                 | Income. No mortgage, convert.       | 7 1872        |               | 50                 |
| Pacific, Mo.....                                           | 2d issue.                           | 7 1873        | 107 108       | 101 102            |
| Panama.....                                                | " " " "                             | 7 1873        |               |                    |
| Parkersburg (or N. western Va.).....                       | Guar. City of Balt.                 | 6 1880        |               | 50 43 40           |
| Pennsylvania.....                                          | 1st mortgage, convert. till 1860.   | 7 1872        |               | 25 25 27           |
| Peru and Indianapolis.....                                 | 1st " " " "                         | 7 1860        |               |                    |
| Rock River Valley Union.....                               | 1st " " " "                         | 10 1853-7     |               |                    |
| Sandusky and Mansfield.....                                | 1st " " " "                         | 7 1861        | 50 51         | 50 50 51           |
| Do do.....                                                 | do 2d " " " "                       | 7 1861        |               |                    |
| Scioto and Hocking Valley.....                             | 1st " income.                       | 7 1861        |               |                    |
| Southwestern, Tennessee.....                               | " " " "                             | 7 1865        |               |                    |
| Springfield and Columbus.....                              | " " " "                             | 8 1862-72     | 91 93         |                    |
| Staubsville and Indiana.....                               | 1st mortgage, convertible.          | 8 1865        | 80 93         |                    |
| Terre Haute and Alton.....                                 | 1st " " " "                         | 6 1866        |               |                    |
| Do do.....                                                 | do 2d " " " "                       | 7 1863        | 87 88         | 50                 |
| Terre Haute and Richmond.....                              | 1st " " " "                         | 7 1863        |               |                    |
| Do do.....                                                 | do 2d " " " "                       | 7 1863        |               |                    |
| Do do.....                                                 | do " " " "                          | 7 1863        |               |                    |
| Do do.....                                                 | Guar. of C..                        | 1883          |               |                    |

STOCK TABLE.

CORRECTED WEEKLY.  
GOVERNMENT SECURITIES.

|                                                              | INT. DUE.  | OFF'D. ASK'D. |
|--------------------------------------------------------------|------------|---------------|
| U. S. Loan.....                                              | 6 1856     | 103 105       |
| Do.....                                                      | 6 1862     | 112 113       |
| Do.....                                                      | 6 1867     | 117 120       |
| Do.....                                                      | 6 1868     | 118 120       |
| Do (int. ceased July 1) 5                                    | 1853       | 102           |
| Do Coupons.....                                              | 1862       | 118           |
| Do " " " "                                                   | 1867       | 118           |
| Do " " " "                                                   | 1853       | 101           |
| STATE.                                                       |            |               |
| Alabama.....                                                 | 5          |               |
| California.....                                              | 7 1870     | 86 89         |
| Arkansas.....                                                | 6          | 96            |
| Georgia.....                                                 | 6          | 98 99         |
| Do.....                                                      | 7          |               |
| Illinois Canal Bonds.....                                    | 1860       |               |
| Do do registered                                             | 1860       |               |
| Do do do                                                     | 1847       |               |
| Do do registered.                                            | 1847       |               |
| Do do Internal Impt.                                         | 6 1847     | 102 104       |
| Do Interest do.....                                          | 5          | 72 75         |
| Indiana.....                                                 | 5          | 79 81         |
| Do.....                                                      | 2 1/2      | 54 55         |
| Do Canal Loan.....                                           | 6          |               |
| Do do preferred.....                                         | 5          |               |
| Do special preferred.....                                    | 5          |               |
| Kentucky, 30 years.....                                      | 6 1871     | 101           |
| Do 16 years.....                                             | 6          | 102           |
| Do large bonds.....                                          | 6 1869-72  | 100 104       |
| Do.....                                                      | 5          |               |
| Louisiana.....                                               | 5          | 89 91         |
| Michigan.....                                                | 6          | 97 98         |
| Missouri.....                                                | 6          | 87 90         |
| New York.....                                                | 6 1873     | 116 117       |
| North Carolina.....                                          | 6          | 99 100        |
| Ohio.....                                                    | 6 1856     | 102           |
| Do.....                                                      | 6 1860     | 105 106       |
| Do.....                                                      | 6 1870     | 118 119       |
| Do.....                                                      | 6 1875     | 118 119       |
| Do.....                                                      | 5 1855     |               |
| Pennsylvania.....                                            | 6          |               |
| Do.....                                                      | 5 1870     | 87 89         |
| Tennessee, long loan.....                                    | 6 1890     | 94 97         |
| Do Coupons.....                                              | 5          | 81 83         |
| Virginia Coupons.....                                        | 6 1886     | 95 97         |
| CITY SECURITIES.                                             |            |               |
| Albany.....                                                  | 6 1871-81  | 99 100        |
| Allegheny.....                                               | 6 1875-7   | 80            |
| Baltimore.....                                               | 6 1870-90  | 99 100        |
| Do.....                                                      | 5 1865     |               |
| Boston Bonds.....                                            | 4 1/2 1860 |               |
| Chicago.....                                                 | 6 1873-7   | 92 95         |
| Cleveland.....                                               | 6 1879     | 103 105       |
| Cincinnati.....                                              | 6 1860-92  | 96 96 1/2     |
| Do.....                                                      | 6 1897     |               |
| Do.....                                                      | 5 1864     |               |
| Do W. W.....                                                 | 6 1865     |               |
| Covington.....                                               | 6 1857     | 80 80         |
| Jeffersonville.....                                          | 6 1890     | 70            |
| Louisville.....                                              | 6 1880     | 86 87         |
| Memphis.....                                                 | 6 1882     | 72 74         |
| New York.....                                                | 7 1857     | 100 102       |
| Do.....                                                      | 5 1858-00  | 95 99         |
| Do.....                                                      | 5 1870-5   | 97 100        |
| Do.....                                                      | 5 1890     |               |
| Philadelphia.....                                            | 6 1876-90  | 94 95         |
| Pittsburgh.....                                              | 6 1869-78  | 81 82         |
| Do coupons.....                                              | 6 1883     |               |
| Racine.....                                                  | 7 1873     | 85 86         |
| St. Louis.....                                               | 6 1870     | 85 86         |
| Wheeling.....                                                | 6 1873     | 70 73         |
| COUNTY BONDS.                                                |            |               |
| Bourbon, Ky.....                                             | 6 1881     | 77 80         |
| Darke, O.....                                                | 7          |               |
| Fairfield, O.....                                            | 7 1862     |               |
| Fayette, Ky.....                                             | 6 1881-3   | 75 75         |
| Hancock Co.....                                              | 7          | 70 75         |
| Mason, Ky.....                                               | 6 1881     | 73 76         |
| McCracken Co. Ky., endorsed by<br>New Orleans and Ohio R. R. |            |               |
| St. Louis.....                                               | 6 1866     | 80 85         |
| Do.....                                                      | 7 1871     |               |
| BANKS.                                                       |            |               |
| OHIO.                                                        |            |               |
| American Exchange Bank, N. Y.....                            | 118        |               |
| Ohio Life Insurance and Trust Co.....                        | 98 100     |               |
| Washington Insurance Co.....                                 | 84 85      |               |
| City Insurance.....                                          | 70         |               |
| Cincinnati Insurance Co.....                                 | 84         |               |
| National Insurance.....                                      | 75 80      |               |
| KENTUCKY.                                                    |            |               |
| Bank of Kentucky and Branches.....                           | 100        |               |
| Northern, and Branches.....                                  | 100        |               |
| Southern, and Branches.....                                  | 93         |               |
| Bank of Louisville.....                                      | 93         |               |
| Kentucky Trust Co.....                                       | 105 108    |               |
| Farmers' Bank of Kentucky.....                               | 105 108    |               |
| Commercial Bank of Kentucky.....                             |            |               |
| INDIANA.                                                     |            |               |
| State Bank and Branches.....                                 |            |               |
| TENNESSEE.                                                   |            |               |
| State Bank and Branches.....                                 |            |               |
| Union.....                                                   |            |               |
| Planters.....                                                |            |               |
| LAND WARRANTS.                                               |            |               |
| 160 acre warrants, per acre, Buy's Sell'g                    | \$1 10     |               |
| 80 acre warrants.....                                        |            |               |
| 40 acre warrants.....                                        |            |               |







**DUBUQUE AND PACIFIC RAILROAD.**—The above road have not yet enlisted much general attention, but those more particularly interested in its construction have been wide awake to its importance, and have not been tardy in making corresponding efforts to secure its construction. As its name imports, it is designed to meet the Illinois and Wisconsin system of roads at Dubuque, and proceed westward across the State of Iowa to the mouth of the Sioux river, on the Missouri, with an ultimate extension to the Pacific, and with a branch to St. Paul and the head of Lake Superior, diverging from the main line either in the valley of the Wabapimea or the Red Cedar River. Not only its eastern connections, but the character of the country to be traversed by it, points to this line of road as one of vast ultimate importance, and there can be no question of the final success of those who are exerting themselves in its behalf.

The contract for the first thirty miles of the road from Dubuque has been taken by Col. R. B. Mason, of this city, and Mr. Bishop, late contractor on the Milwaukee division of the Chicago and Milwaukee Road.—*Chic. Press.*

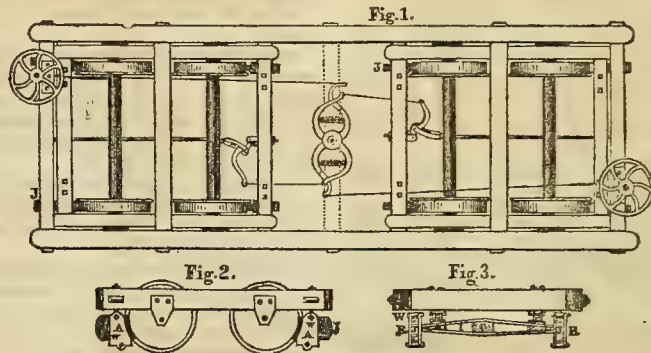
#### WHY OUR RIVERS ARE NOT NAVIGABLE.

The city of Cairo, at the mouth of the Ohio river, is only 340 feet above the level of the Gulf of Mexico, so that the descent of the water of the Mississippi between that point and the Gulf, averages only about one foot to every five miles. The mean height of the State of Illinois, according to Mr. J. L. Peyton, whose researches appear in a late number of DeBow's Review, is only 550 feet above tide water. The mean elevation of Texas, is very nearly equal to that of Illinois. The rolling lands of Washington, Austin, Fayette, and other counties equally near the coast, possesses an average elevation of about 200 feet. East of the Trinity the rolling region falls back further from the coast, the level plain widening until it reaches the Mississippi. From the Trinity westward, the hills come nearer and still nearer the coast until we reach the Rio Grande, and on the other side they soon come down to the Gulf; and, finally, the snow-capped summit of Orizava is in sight of the sea near Vera Cruz. The rapid descent of the rivers to the Gulf from the table lands of Mexico, renders them entirely useless for transportation. The Rio Grande is the only Mexican stream emptying into the Gulf north of the Coatzacoalcos, in Yucatan, that has any pretension to navigation, and although the largest river on the Atlantic side, between the Mississippi and the Amazon, is only navigable about 320 or 400 miles. Did the Rio Grande flow through as level a region as the Mississippi below Cairo, it would be navigable probably two thousand miles, but the rapid descent of its waters renders it useless for commercial purposes. The same may be said of most of the Texas rivers above tide water. If ours was a flat monotonous country, we should have navigation, but nature has bestowed on it an uneven, broken, picturesque, beautiful surface, and with our rich soils and salubrious atmosphere our people must be content with supplying what nature has denied.

We could not be tempted for all the navigable waters of Louisiana or northern Brazil, to exchange our sublime scenery for their monotonous plains. Nature has chartered our railways, and we must build them and be thankful.—*Houston Telegraph.*

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention. J. P. DERBY, Agent, Cavendish, Vt.  
The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

We, the undersigned, hereby certify that we have seen the operation of a Railroad Car Brake, now in use on the Rutland and Burlington Railroad, invented by Mr. Lucius Paige, of Cavendish, in the State of Vermont, and are satisfied that it is the cheapest (taking into account repairs, &c.) and the best thing of the kind now in use.

JOHN S. DUNLAP, Supt. R. & B. R. R. E. WHITCOMB, Conductor R. & B. R. R.  
M. G. LITCHFIELD, Master Mechanic R. & B. R. R. P. R. DOWNER, Conductor R. & B. R. R.  
JOSIAH BOWTELL, Conductor R. & B. R. R. J. F. STINSON, Road Master R. & B. R. R.  
A. W. WHITCOMB, Conductor R. & B. R. R. DANIEL ARMS, Conductor R. & B. R. R.  
SILAS L. PIERCE, Engineer R. & B. R. R.

We, the undersigned, hereby certify that the Car Brake illustrated upon the preceding page, is now in use on the Lowell Railroad, and having made a satisfactory trial thereof, most fully accord to it a great superiority over any other Brake in use, embodying especially the advantages above set forth, and recommend it as being in all respects superior to any other.

June 15, 1855.

C. B. KING, Master of Machinery.  
ENOCH HALE, Car Builder.  
JARVIS CUSHING, Car Builder.  
E. D. COLBY, Car Builder.  
B. F. BAILEY, Car Builder.

WILLIAM SNELL, Car Builder.  
EDWARD FOWLE, Car Builder.  
WM. H. PETTINGELL, Depot Master.  
DAVID R. KIRBY, Conductor.  
P. A. PEARSON, Machinist.

The names above signed are those of practical men in our machinery department. Mr. King being widely known for his skill and good judgment, and any addition from me appears to be superfluous—but at the request of the patentee or inventor, I can and do cheerfully say, that the mechanical features of his plan are such as make the Brake superior to most, and second to none with which I am acquainted.

Nov. 1.

WM. PARKER, Agent B. & L. R. R. Co.

## New Railroad Map.

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

Plain Lithograph,.....\$0.50  
Colored Boundaries,.....0.75  
Backed with muslin and varnished ready for moulding,.....1.50  
Mounted,.....2.00

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers.  
Railroad Companies wishing a large number to circulate with reports, or to supply their various offices, will be allowed a corresponding discount.  
Orders addressed to

T. WRIGHTSON & CO.,  
Publishers R. R. Record,  
167 Walnut St.,  
Cincinnati, Ohio.

## To Railroad Contractors.

SEALED proposals will be received at the office of the Edgfield and Kentucky Railroad Co., in Nashville, Tenn., until Saturday, Dec. 15th, 1855, for the construction of their Road, from Nashville to the Kentucky Line, where it meets the Hudson and Nashville Railroad to Hudson on the Ohio River. The E. & K. Railroad is about forty-eight miles long, through a country well adapted to railroad construction, and the work will be divided into sections of about one mile each, which may be bid for separately or the whole road included in one proposition. Proposals may also be made to build the thirty miles only next to Nashville, either by single section or in one contract.

There are on the road, one tunnel half a mile long, heavy rock work at various points, and two large bridges. Maps, profiles and plans will be ready for examination by Dec. 1st, and any information may be obtained by addressing the undersigned.

SAM'L WATSON, President.

A. ANDERSON, Chief Engineer.

Nashville, Tenn., Oct. 20, 1855. Nov. 1.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSSE, LIVINGSTON & CO., 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.**

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,  
and their contents,  
STEAMBOATS, BARGES,  
and their Cargos,**

**Manufacturing Establishments,  
Railroad Depots and Station Houses,**  
at current rates. **L. A. OSTROM,  
ug. 16. No. 6 West Third Street, Cincinnati.**

**RAILROAD IRON.**

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via, Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious. Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY. Quebec & Kingston, Canada.**  
**BERRY & WALKER. Liverpool, England.**  
Kingston, C. W., Sept. 15, 1855.



**T. N. RAFFINGTON,  
GENERAL ENGRAVER,  
North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
CINCINNATI.**

**BANK NOTE ENGRAVING.  
DANFORTH, WRIGHT & Co.,  
No. 25 West Third Street, Cincinnati.  
Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.**

**Rawdon, Wright, Hatch & Edson,  
BANK NOTE  
ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,  
BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, &c., &c.**

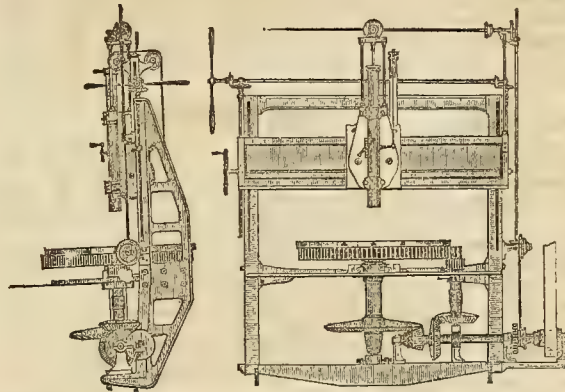
Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
**GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.**

**MIDDLETON, WALLACE & CO.,  
LITHOGRAPHERS & ENGRAVERS,  
No. 115 Walnut St., Cincinnati.  
RAILROAD BONDS AND CERTIFICATES OF STOCK  
Beautifully executed and at moderate rates.  
Maps, Portraits, Views of Build-  
ings and Cities, Notes, Drafts, Bills  
of Exchange, Show Cards, &c.  
Engraved in all styles and on short notice.**

**NILES' WORKS.****FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of  
**TYRE LATHES,**  
Of the most approved plan.

**HORIZONTAL  
FACE PLATE LATHES,  
OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.**

**PLANING MACHINES  
LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

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IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,  
16th Street and Pennsylvania Avenue,  
PHILADELPHIA, PA.,  
Manufacture, in addition to their well  
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**ENGINEERS' & MACHINISTS' TOOLS,  
SHAFTING, GEARING,  
PULLEYS, COUPLINGS,  
AND**

**BANCROFT'S PATENT SELF-ADJUSTING  
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Together with general Millwright Work for Railroad  
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— ALSO —

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Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with  
PARRY'S PATENT**

**Anti-Friction Pivot Box.**

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Suited for Locomotive and Repair Shops, Car Fac-  
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No. 1, 2d STORY APOLLO BUILDING,  
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Surveyors' & Engineers'  
Instruments, Theodo-  
lites, Transits,  
Levels, &c.,**

**REPAIRING AND ADJUSTING INSTRU-  
MENTS DONE TO ORDER.**

Orders promptly attended to.

**LOCOMOTIVES FOR SALE.  
OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY.  
Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines,  
28 tons weight; 10 wheels, 6 drivers and truck.  
Two of the Engines now ready for delivery, and four  
in the course of three months. Our Coal Burners are  
used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage)  
Pennsylvania Central; Manassas Gap & Orange & Al-  
exandria, Georges Creek Co.'s road, Central Ohio, and  
Ohio & Penna.; and for their durability and economy  
of repairs, and economy of fuel, we refer to the officers  
of the above roads.

Orders for freight or passenger engines deliverable on  
or after the first of December, solicited.

Address, **THATCHER PERKINS,  
President.**

Also, for sale, two Twenty Horse Power Stationary  
Engines.  
Aug. 9 4t

**THE SCHENCK  
MACHINERY DEPOT  
AND**

**Leather Banding Manufactory,  
No. 163 GREENWICH STREET,  
NEW-YORK,**

**KEEPS** constantly for sale, Tools suitable for Rail-  
road Repair Shops, and having connection with  
some of the largest Establishments at the East, is pre-  
pared to furnish Tools of any description. Also the  
principal Manufacturer of the justly celebrated Wood-  
worth's Patent Planing Machines in forty different va-  
rieties. Slide and Hand Lathes, Iron Planing Machines,  
Sash and Tenoning Machines, Mortising Machines, Up-  
right Drills, Chucks, Steam Engines, and Boilers, Pumps  
of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented  
and copper riveted. Warranted superior to any made.  
Orders respectfully solicited.

**A. L. AUKERMAN, PROPRIETOR.**

Aug. 9 ly

**D. D. MILLER,  
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LOCOMOTIVE, RAILROAD AND HAND  
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**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

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**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,

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Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—

are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-ly

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**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St., PHILADELPHIA.

**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Granger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly CASH.

Aug. 2, 1855.

R. L. OWEN, Chief Engineer.

aug2 12w

**THE KENTUCKY MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned,

P. DUDLEY,

President of the Board.

July 26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

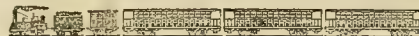
The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1855.

Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

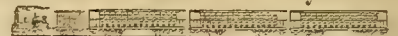
TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUETIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk, and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNS.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

**CINCINNATI, HAMILTON & DAYTON, AND EATON & HAMILTON R. R.**

TO CHICAGO, in.....35 HOURS.

TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

D. M. MORROW, Superintendent

Feb. 8-ly



## Baltimore &amp; Ohio Railroad.



## 380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,  
ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Columbus,  
Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED  
For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

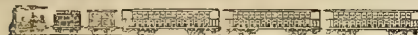
**Philadelphia and New York Railroads,**  
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.  
WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
Baltimore.  
Je. 87

TO LOUISVILLE  
IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

FREIGHT—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4. East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,  
Chief Engineer and Superintendent.

Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.  
aug2.

STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES),  
is prepared to execute in the best manner all kinds of  
**STEREOTYPING,**  
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of  
**Card and Job Type, Cuts, Rules, &c. &c.**  
from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.  
C. F. O'DRISCOLL,  
108 1-2 Vine Street, Cincinnati, O.

1855. New Arrangement, 1855  
COMMENCING MONDAY, JULY 16.LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

Laid with Heavy T Iron.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route, CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.  
Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3½ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30½ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburgh in.....   | 14 "      |
| To Philadelphia in..... | 30 "      |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami) Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## PERU &amp; INDIANAPOLIS R. R.

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays expected, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

ISAAC W. HUNTER, Superintendent.

A. C. BARRETT, Gen. Fr'ght. Ag't.  
Indianapolis, October 1, 1855

## Covington and Lexington Railroad.

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demosville, Butler, Irving, Fairmouth, Cullerville, Boyd's, Berry's, Robinson's, Garrett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M. stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

## RATES OF FARE.

|                             |        |
|-----------------------------|--------|
| Covington to Lexington..... | \$3 00 |
| Covington to Paris.....     | 2 40   |
| Covington to Cynthia.....   | 2 00   |

## FOR THROUGH TICKETS.

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington.

J. M. DOUGHERTY,  
Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices oct. 17\* CLAYTON & GRANT.

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for intermediate and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via, Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.  
SIDNEY RICE,  
Agent.

Cincinnati, Nov. 1, 1855.

**W. G. ATKINSON,**  
Civil Engineer, Surveyor & Draftsman,  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared.  
mar1-1y



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNYS & PECK,  
Louisville, Ky.

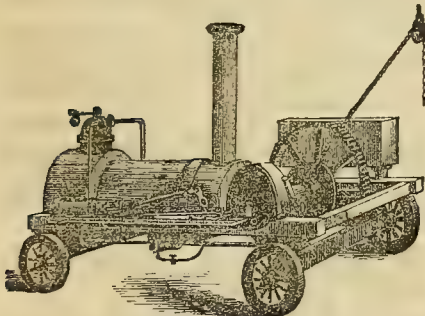
**Norris' Locomotive Works,**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,  
S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug 26m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

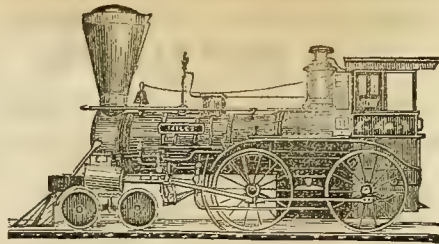
Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DERAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI,

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846\* Office, No. 64 Courtland st., New York.

**ENGINEERS' & SURVEYORS' INSTRUMENTS.**

JAMES FOSTER, JR.,

SOUTH WEST CORNER OF FIFTH & RACE STS.

HAS FOR SALE, OF HIS OWN MAKE, Levels, Transits, Theodolites, the Dumpy or Gravatt's Level, Circular Protractors of Troughton & Simms and other models, Surveyors, Compasses, Pocket Compasses with and without sights, in great variety. All kinds of Land Chains; Ivory and Box Wood Scales of all kinds; Drawing Instruments of all kinds, Measuring Tapes of all kinds, Magnifiers, Barometers, Thermometers, Spy Glasses, &c., &c. Repairing promptly attended to.

Dr Locke's Hand Level always for sale. For construction and use, see R. Record of October 20th. 1853. mar1-1f

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings. Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. Jy12.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 MOORE & RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T & E. Wason, Springfield, Massachusetts.

**Railroad Car Findings.**

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Casting Fit

Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight, Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Belts, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron. Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers.

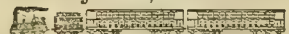
Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.  
toc6

**CAR MANUFACTORY,**

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

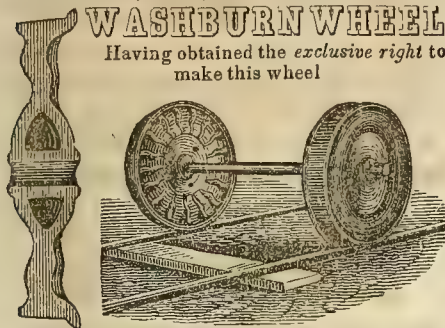
Dayton, Jan. 24th. 1852.

Jan. 25-1



## FULTON CAR WORKS, CINCINNATI, OHIO.

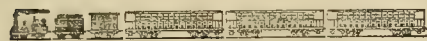
THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL.

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
au4tf. Muskingum Works, Zanesville, O.

**J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL**  
**DAVENPORT, RUSSELL & CO.,**

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16<sup>th</sup> **JOSEPH DAVENPORT.**

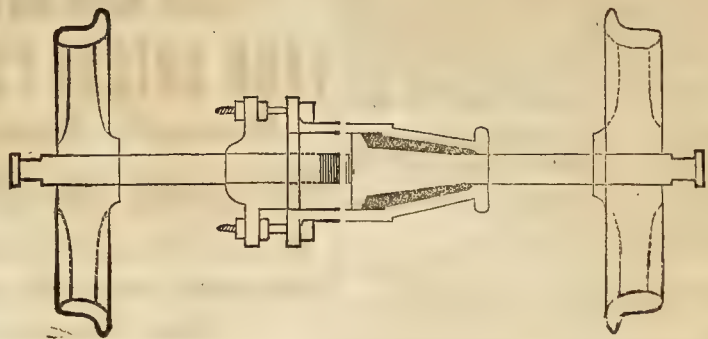
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## PATENT PAD LOCKS,

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# DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

**MCDANIEL & HORNER,**  
**LOCOMOTIVE AND CAR**  
**MOTIVE SPRING**

## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDE IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

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May 19

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**EMERSON FOOT, Supt. M. & W. R. R. Macon, Ga.**

**THOMAS DOUGHERTY, Master Mach. do.**

**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.**

## DURYEE & FORSYTH'S PATENT PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

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### REFERENCES.

**Richard Norris & Son, Locomotive Builders, Philad'a,**

**Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "**

**Charles H. Fisher, Esq., "**

**Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.**

**Pinckney Huger, Esq., Pres't N.E.R.R. Co.**

Oct. 12-15



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to  
JOHN RICE & CO., Patentees.  
90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.  
OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, Jr.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENNA R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,  
H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH P. A. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bacroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,  
Superintendent of Steamboats for Camden and Annapolis Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bacroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,  
STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES, For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES,

For Railway Wheels, Railway Axles and Springs,  
SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

## FRIED. KRUPP,

Essen Rhenish Prussia.

Represented solely in the United States by

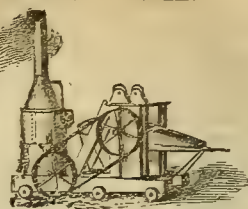
THOMAS PROSSER & SON,

28

PLATT STREET, New York!

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.

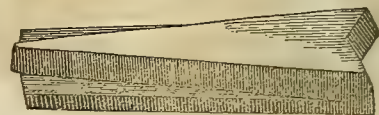


A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

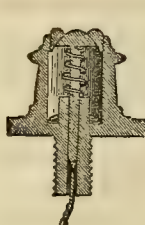
The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

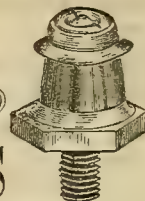
LEE & LEAVITT,  
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



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CUPS



For Locomotive and Stationary Engines. For sale by  
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# Railroad Record.

E. D. MANSFIELD, - - - - Editor.

W. WRIGHTSON, { Associate Editors.  
J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING, ..... NOVEMBER 8, 1855.

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MESSRS. ALGAR & STREET, of the London Provincial  
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No. 11 Clement's Lane,  
London, England.

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### EDGEFIELD AND KENTUCKY RAILROAD.

#### NOTICE TO CONTRACTORS.

We would call the attention of contractors to the advertisement of this road in our advertising columns. The directors invite proposals for the construction of the road, up to December 15th. The road is 48 miles long, and may be divided into sections of one mile each. Proposals will be received either for each section separately or the whole line.

Maps, profiles and plans will be ready for examination by December 1. Full information may be obtained of the president or engineer at Nashville, or by letter.

VOL. III.—No. 37.

### FINANCIAL CONDITION OF THE U. STATES, AND FUTURE PROSPECTS.

The *monied world* is more unstable than the political. Naturally this is not so. It takes much more powerful causes and requires much more time to move masses of property, than it does masses of men. But, what is called the *money market* does not represent property. It represents only the monetary opinions of the day. If the monied men, or rather not monied men, but *dealers* in money really *think* that the public stocks will rise, they have what is called *confidence*; they will buy at a little higher price, and thus credit the rise which they expect. So, on the contrary, if they *think* things are going back, they withdraw confidence, and stocks fall. But this *opinion—confidence*—or, whatever it may be called, is almost altogether a creature of imagination; and we daily behold the extraordinary spectacle of the gravest men, pursuing the gravest interests, and risking what they have made the objects of their lives, *property*, upon no other basis, than imagination! Why should poets, novelists, or speculators be blamed for dealing in fiction, when the great monied world deal in millions, based upon nothing but fancied ideas of value? But while this is the fact, it is also true that many of these men think themselves profound reasoners, and believe that they have fathomed the bottom of things, when they have looked into the *Mark Lane Express*, the *Economist*, the *Price Current*, or some other channel of commercial facts. In truth, they generally see but one-half the facts, and reason from them in a very superficial manner.

Happily, the science of statistics is gradually becoming developed, so that some of the elements of political economy are developed, and men can see and understand some of the influences which direct the currents of industry, production, consumption, and finance. If our state and national legislatures would do but a little in encouraging staticians, and men of science, we should, in a few years, know the movements of production and consumption, financial balances, of social progress, and the advance of the arts, as we know the results of a mathematical problem. Till this is done, we shall know but little accurately, and the financial world be moved to and fro by imagination, and those, not a few, who play on the imagination.

The monied circles are just now much exercised by the movements of the banks of England and France, the demand for specie, and the influence of War Loans. We propose to review all the *facts* and conclusions from them, which can fairly be stated as true.

1. The first great fact is, that *half the population of Europe are at war*. For the population of Great Britain, France, Russia, Turkey, in Europe, and other dependencies make half the population of Europe.

2. That this war bears *no appearance of a speedy termination*.

3. That the governments engaged in that war, having supported it heretofore chiefly out of their ordinary means, are now obliged to resort to extraordinary means, such as War Loans, and heavy Taxes.

4. That armies engaged at a distance from home *must be paid in gold*, and also all their means of transportation and support.

5. That this demand is all *outside of ordinary commercial currents*, and creates, therefore, an outside and unaccounted for pressure on the great depositories of gold, such as the banks of France and England.

6. That these institutions must *protect themselves* in two ways—first, by *making money at the banks too dear* (by raising the rate,) for others to take it—and, secondly, by getting it *from the original sources of supply, the gold countries*.

7. That this being an irregular demand, *cannot be exactly estimated*.

8. That in addition to this series of facts, arising out of a state of war, there is another giving rise to a *deficiency of bread*.

9. One of these is, that France, England, and Germany are all deficient, and *must import bread*.

10. That the war has cut off one great source of supply, the Black Sea, and those countries *must import bread from the United States*.

11. In regard to this country, *these facts are all reversed*.

We are at peace, and the entire population engaged in industrial pursuits. We have no large armies or war debts, which must be paid in gold. We are, on the contrary, a gold producing country. We have abundant harvests, and export bread, meat, cotton, and tobacco. Finally, we have all the elements of wealth, of strength, and of growth.

While, therefore, Europe may be embarrassed with expensive governments, be engaged in costly wars, may be famishing without bread, or agitated with domestic tumults, this country has all the blessings which peace, industry, and prosperity can confer. What, then, has this country to fear from the embarrassments or struggles of Europe? Absolutely nothing. Suppose the suspension of the Bank of England should cause such a demand for gold here, as to suspend our banks, what then? Such a thing *might* happen; but a measure of precaution, like that, is a totally different thing, from such a measure as that of 1837, arising from debts and bankruptcy at home. Many private banks and railways suspended last year; but, what of that? The country, the people moved on in their course of prosperity, as if nothing had happened; as if there were no breaks, no croakers. In fact, all the race of banks and bankers are now of small moment in the



great stream of national wealth. Yet, it would, doubtless, be very inconvenient, and to some persons embarrassing to have a derangement in our currency system; and there need be none, if every banker acts on the old fashioned maxim—"to cut his coat according to his cloth."

But, let us proceed to what we suppose to be the real and only effects which the continuance of the European War may have upon us.

War has but one great effect on Finances. It immediately creates the necessity for War Loans, which is but an issue of National Paper Credits. But, as there is but a given amount of capital in the world, to be invested in paper credits; it follows, that in proportion as the governments absorb this capital, the less there will be left for credits founded on individual or associated enterprise. Hence, when the very first loans were issued in this war, it began to diminish the new investments in American Railroads. At that time, however, they believed the war would be short, and there was some revival of business in Bonds.

The war being now, however, a settled fact, and as there is no apparent limit to government loans, the Bank of England has raised its rate of interest very high, and that raises the interest on all transactions. The consequence will, no doubt, be that there will be but little inducement to invest in new American loans. But while this is true, it by no means follows that our securities will be *sent back* (as the phrase is,) to be sold here. This idea is wholly imaginary. Consider for one moment how those stocks are held. The great mass of them are held by retired gentlemen, by clergymen, by men living on their estates, wealthy merchants, etc. Now, this sort of people will never send stocks, paying high dividends, back to be sold in this country. The idea is wholly imaginary. Some stocks are, doubtless, held by Brokers and Bankers, who may possibly send them back. There is evidently no sort of trouble to be apprehended from that source. There are, however, *changes* which are of great importance, probably to take place, in our commercial relations with Europe the coming year.

1. The great abundance of gold which has been accumulating since 1847, has mostly concentrated in Germany, France, and England; and as a direct consequence, *raised prices in Europe*. It is perfectly well known that *three-fourths* of all our California gold has been sent to Europe to pay for foreign goods. So of Australia. We cannot tell the precise amount of gold acquired by middle and western Europe, from the new gold mines of the world; but the following is probably a near approximation to the amount of gold actually accumulated there since 1848, viz:

|                     |               |
|---------------------|---------------|
| United States.....  | \$290,000,000 |
| Australia.....      | 100,000,000   |
| Ural Mountains..... | 140,000,000   |
| Aggregate.....      | \$440,000,000 |

There must, at least, be more than *four hundred millions in gold*, added to former amounts since 1848! The direct effect of this is to *advance prices*; supposing that *production* remained the same, but production has *not* been the same. It is lessened—we mean as to *proportions*. Accordingly we find it stated in German papers, that prices have risen there, not merely from diminution of supplies; but from the great abundance of gold.

2. We stated in the last number of the *Record* some of the facts which go to prove, that the population employed in towns, and the arts, is increasing at a much more rapid rate, than the agricultural; the consequence of which is, that the production of food is diminishing *proportionally*, notwithstanding abundant harvests in some places. Of course we do not speak of the United States only, but of both Europe and America.

3. We see in the two former facts enough to raise prices, without entering into the question of crops at all. But, in fact, we find this season that the United States has a very abundant harvest, and Europe a deficient one. The consequence of this, taken in connection with the abundance of money among the *people* of Europe will be, that *we shall export our surplus crop at very good prices*.

4. But to this there is one great drawback. The rise of price in bread, *diminishes the price for cotton*. Why? For a plain and inevitable reason. The consumption of manufactured goods depends on the price. The price depends on the two prices of *labor* and *material*. Labor is but another term for bread. Bread makes muscle, and muscle is a machine for manufactures. Now if bread rises, one of two things must happen. The manufacturer must get his material cheaper, or he must raise the price of goods. The last he will not do, while he can help it. His first device is to manufacture less. The demand falls off, and the price of the raw material falls. This process must go on too, till cotton is low enough to counteract the rise in bread.

5. In the meantime, the accumulation of wealth by the farm owners and cultivators, will go on with great rapidity, especially in the western states, for the price of all domestic produce being high, at the very moment that harvests are abundant, will give heavy dividends on lands, and the farming portion of the community will (in the proper and only essential meaning of that word) become rich.

6. The Railways of the country, under such circumstances, must do an immense business. We have already some extraordinary results. The Pennsylvania Railroad, which is the outlet for Central Ohio, has increased

its receipts in the last two months, at a prodigious rate. All the produce-carrying railroads of Ohio are doing a largely increased business. The same fact will, in some degree, be exhibited on all the western roads; and this will react on the principal eastern lines. As the capital employed in railways is *six hundred millions*, an increase of receipts equal to three per cent. on this amount (and it will probably be greater,) will amount to no less than *eighteen millions*. The addition of such an immense amount to the treasuries of railway corporations, will enable the completed ones to pay good cash dividends, and those which are constructing will receive great collateral aid.

Thus the condition of the interior of the United States will, in a commercial point of view, be most eminently prosperous. The growth of population and wealth, which has flowed so strongly to the Valley of the Ohio, will flow on, and it cannot be many years before it is not merely the most populous, but the most wealthy region of the United States.

The only serious shade upon this prospect, is the constant tendency, in this country, to *over trading*, and to *extravagance in living*. These are drawbacks, however, which often prove disastrous, but against which the prudence of merchants and bankers should provide all possible checks.

#### SOUTHERN PACIFIC RAILROAD. LETTER OF HON. T. BUTLER KING.

We publish to-day a reprint of the letter of Hon. T. Butler King on the subject of the Southern Pacific Railroad to certain capitalists of New-York. The letter was published in the New York Herald of October 30th, and was designed to interest the New York capitalists by furnishing them information with regard to this project.

This subject is no new one with Mr. King. It is one which has occupied his attention for years, and on which he is perhaps better informed than any other person in the country. As early as the date of the first virtual settlement of California, and even before the vast riches of that State were generally known, Mr. King had opportunities rarely enjoyed for collecting information with regard to California and the territory that separates it from the eastern States. And since that period has been prominent among those who have been endeavoring to present the subject of a Pacific Railroad in its true light before the country.

In his letter, Mr. King argues the folly of building three roads to the Pacific, even if the three were practicable. One is sufficient for our present wants and that one should be the best and cheapest. That one, and that *only* one, he contends, is the southern route on the parallel of 32 degrees. Next to this, but next by a great disparity, is the extreme northern route on the parallel of 48½ degrees and running up to 49.



He examines in a masterly manner the question of latitude and climate. Assuming 40 degrees to be about the middle latitude of the country he argues that, to reach the latitude of 49, we must travel one degree of latitude further from the middle course and a thousand miles of distance more than on the southern route. The expenditure of money and time, in both construction and operation would therefore be tremendously increased on the northern route. That considerations of climate in favor of the southern route are even greater than these. Mr. King next examines the characteristics of the route and the probabilities of emigration along the line, the business to be done, including revenue that may reasonably be expected, and the basis of a credit to raise the necessary funds for the prosecution of the work, and finally the *national reasons* for the construction of a Railroad to the Pacific. In this last argument Mr. King will be cordially joined by every one who knows anything of the difficulties attending the early history of California. California has been to us a distant colony, reached only by the seaboard, and suffering all the inconveniences and annoyances that usually attend the settlement of distant colonies in general. The construction of a Railroad to connect the Atlantic and Pacific, will make California and Oregon—the whole Pacific slope—in reality *a part of our country*, in such a sense as no other measure can. It will make their people our people, and bind us together with links of iron as well as strengthen the ties of consanguinity and social intercourse.

#### ACCIDENT ON THE MISSOURI PACIFIC R. R. INSUFFICIENT BRIDGING.

The last three months have been characterized by two of the most fearful railroad accidents that have ever occurred, attended with circumstances of the most distressing character, the one resulting from the present system of managing roads and insufficient protection from outside interference, and the other from an equally defective system of construction.

The directors of the Missouri Pacific Railroad, anxious to hasten forward their work as rapidly and even more so than the limited means which they could command during the past trying year, would warrant, instead of diminishing the progress that they should aim to make, have reduced the cost of the works they actually put up. Their bridges and superstructure are of a temporary character, and designed to last only till better could be afforded. The result has been one of the most fearful accidents that we have ever recorded. On the morning of Nov. 1, an excursion train left St. Louis for Jefferson City. The guests embraced many of the most energetic and valuable citizens of St. Louis, men whose places in society cannot easily be filled. On arriving at the Gasconade, 8 miles from Hermann, the first span of the bridge over that stream gave way just as the locomotive

was coming over the first pier. Ten passenger cars freighted with human beings were precipitated with their living load into the stream. The scene that followed can be neither imagined nor described. The victims of this calamity are already known to amount 29 killed, and large numbers wounded. Among the killed was the chief engineer of the road, who was on the engine at the time of the accident.

As to cause, there is but one opinion. The bridge was insufficient to bear the weight that was put upon it. But this is not all, nor the worst. *All the bridges* on this road are of the same character. Since this first tremendous accident, two other bridges have fallen, happily without loss of life, making in all three fallen structures within one week.

The fearful responsibility consequent upon such sacrifices of human life, is terrible to consider. The lives of hundreds of human beings, exposed to most eminent danger, for what? Mistaken notions of economy. But it is not our province at this distance from the scene of the fatal misfortune, and thus early after its occurrence, before a searching investigation has been instituted, to add censure to misfortune. We trust, however, that this lesson written in blood, will not be soon forgotten. The responsibility of those who construct railroads, the great highways of modern civilization, is no ordinary one, and they will do well to remember that the safest and cheapest plan, is always to erect the most substantial structures.

#### OPEN SWITCHES.

One of the most inexcusable as well as frequent causes of accidents is open switches. A careless switch tender opens a switch to let a gravel train pass upon a side track, and never thinking to replace it leaves it thus. The next train that is due comes thundering on expecting every thing right and the result is a serious accident, frequently, involving loss of life, and always serious loss of property.

One of these serious accidents has just occurred on the Chicago and Mississippi R. R. As the up train was approaching the junction of the Illinois & Mississippi R. R. fourteen miles south of Chicago it encountered an open switch. The switch had not been used for sometime and the engineer was not expecting danger. It had been opened to let a gravel train pass and left so carelessly and recklessly. A brakeman on the train named Page was seriously injured, and several passengers much bruised. The excuse offered by the switch tender is that he forgot it. There should be something besides mere discharge from the services of the company, to compel men of short memories to make a particular minute of their duty, when its neglect involves such terrible consequences.

#### THE LANDS OBTAINED BY THE GADSDEN TREATY—MISTAKE CORRECTED.

The New York *Herald* of October 30th, commenting on the letter of Thomas Butler King, on the Pacific Railway plan; has this paragraph:

"Thus far, we concur with Mr. King in the marked advantages of the Texas and Gadsden route. They are visible in a glance at the map of the United States. But in regard to the fertility of the Gadsden country we must demur. It is a desert—a barren, dry and howling wilderness—with here and there an oasis, watered by a welcome stream, but which is sooner or later absorbed by the greedy sands. This desert region may be rich in gold, silver, and copper mines, but they have not yet been discovered to any satisfactory extent."

The opinion expressed by the *Herald* is, no doubt, the common one; and is natural enough, since very little is known of the country; and it was supposed to consist of mountains and sand plains. But such is not the fact. On referring to Col. Gray's Report (and he was the last explorer,) we find him continually referring, while in that region, to "running streams," "rich pastures," "good grazing," etc. In fact, the "Gadsden purchase" lies south of the principal mountain ranges, and sand plains. Much of it appears, from the best testimony, to be fertile valleys, and it affords the best, and in fact, the only practicable route for a great railway line from El Paso west. At any rate, it is very certain a company can be found who will give the government ten millions for their purchase.

#### GLASS BOXES FOR AXLE AND STATIONARY JOURNALS.

We are indebted to Messrs Niles & Co., locomotive builders of this city, for two specimens of GLASS BOXES for R. R. axle journals. One has been worn for eight months on the Eaton & Richmond R. R., and the other is perfectly new.

The glass box is a cast iron box filled with glass just as the ordinary brass box is filled with Babbett metal. At first view it would seem that glass is too fragile a substance for the tremendous strain to which it must be subjected, but experience proves otherwise. It makes a very cheap, substantial and economical box, and is more durable than many of the contrivances now used. In point of *economy in cost*, it has a decided advantage over the brass Babbet box *costing only half as much*. In *economy of use*, it is claimed by the maker that the decrease in friction is very great, and that a saving of two-thirds in expenditure of oil is obtained.

The box we have, has been in use on the Eaton & Richmond R. R. under a passenger car for eight months, during which time it has run 15,600 miles with *one oiling*. The box has been used with the Lightner wedge, and the result thus obtained is highly satisfactory.



**PAIGE'S IMPROVED CAR BRAKE BLOCKS.**

One of the expensive parts of maintaining a system of car brakes is the constant wear upon the brake, which renders it useless, and causes it to require shoeing. Now this shoeing is generally done with pieces of wood sawed as near as may be to suit the shape of the worn brake on one side, and the wheel on the other. It is very evident that this cannot be done in every instance. A slight variation in the amount of wear is sufficient to spoil the fit of the shoe, and hence the repaired brake must generally be worn somewhat before it fits the wheel, and is capable of doing active service. It is therefore partly worn before it begins to fit. These shoes also are cut along the grain of the wood, and wear rapidly. Now Paige's Car Brake block remedy both these difficulties. A block of wood of suitable shape is fastened between two jaws held by bolts. It thus presents the end of the grain against the wheel, and is more durable than it would be if it presented the grain. Again in case of wear, it is simply necessary to unscrew the bolts and set forward the block. The brake is thus easily kept in the best order, and is always of suitable shape.

For cut of brake, and certificates of those who use it, see advertisement, in advertising column.

**VICKSBURG, SHREVEPORT AND TEXAS R. R.**

The following gentlemen have been elected Directors of the above railroad for the ensuing year :

C. G. Young, C. H. Dabbs, John Ray, C. H. Morrison, J. N. T. Richardson, John T. Sterling, Jas. H. Stevens, Isaiah Garrett, of Ovacheta ; John W. Webb, of Morehouse ; L. P. Crain, of Caddo ; H. M. Bry, of Ouachita ; Jesse Smith, of Bienville ; A. M. Paxter, of Vicksburg ; H. M. Polk, of Jackson ; Samuel Anderson, of Madison.

Dr. C. G. Young was elected President of the Board ; O. D. Stillman, Secretary ; and Joseph F. McGuire, Treasurer.

The board resolved to purchase immediately iron rails, spikes, and chairs to construct the first ten miles from Vicksburg west, and to have the iron ready by January 1st, 1856.

The earnings of the New Albany and Salem Railroad for September were :

|                                  |             |
|----------------------------------|-------------|
| Passengers.....                  | \$31,734 07 |
| Freight.....                     | 33,174 97   |
| Mail.....                        | 1,837 50    |
| Total.....                       | \$66,746 54 |
| Earnings in September, 1854..... | 62,032 00   |
| Increase.....                    | 4,713 51    |

|                                                              |             |
|--------------------------------------------------------------|-------------|
| INCOME OF WESTERN & ATLANTIC R. R., GA.—FOR September, 1855. |             |
| From Freights.....                                           | \$58,568 02 |
| “ Passengers.....                                            | 18,114 93   |
| “ Mail.....                                                  | 1,895 85    |
|                                                              | \$77,578 79 |
| Income for September, 1854.....                              | 41,336 69   |
| Increase for September 1855, over September 1854.....        | \$36,242 10 |

**Railroads.****THE PACIFIC RAILROAD.**

Letter of Hon. Thomas Butler King to Certain New York Capitalists, in Behalf of the Texas and Gadsden Country Route—Advantages of the Route—Commercial and Political Views, etc.

NEW YORK, Oct. 24, 1855.

GENTLEMEN :—Having had the pleasure of communicating to you verbally my views on the subject of a railroad to the Pacific Ocean, I now beg leave to submit them in a more connected and tangible form. The people of the United States, on both sides of the continent, have become so thoroughly convinced of the importance of this great work, as a national necessity, I shall not take into consideration that branch of the subject, further than it may be developed in the course of my observations. That point being conceded, the next that presents itself is the proper route for the road, its practicability, and the results which will probably flow from its construction.

The Legislation of Congress, exhibiting a most remarkable want of practical statesmanship, has indicated and proposed to provide for the construction of three lines. Now, nothing can be more certain than that if the broad expanse of country extending to the Pacific were a perfect plain, it would be unwise to attempt, at such vast expense, the construction of three roads at the same time, when it is clear that one will be quite sufficient for all intercommunication between the Atlantic and Pacific States for many years to come. Therefore, any attempt to force upon the money market three such gigantic and competing enterprises at the same time, would, beyond doubt, cause the utter failure of all. It has, therefore, been a matter of surprise among all thinking, practical men, that Congress has not sought out, as the sole object of its legislation, that line for this great enterprise which, under existing circumstances, combines in its favor not only the greatest pecuniary reward to those who undertake it, but also the most important and pressing national considerations. It is not quite certain that the surveys and examinations which have been made, prove more than one route to be practicable. That is the extreme southern line, running along and near the parallel of north latitude 32°, through the State of Texas, and the territory acquired from Mexico under the Gadsden Treaty, to the junction of the Gila and Colorado, and thence through California to the Pacific.

It is claimed, however, that the extreme northern route is practicable, extending from Chicago through the States of Illinois and Iowa, thence around the Great Bend of the Missouri, and crossing the depression in the Rocky Mountains at or near the point of the Hudson's Bay Company's portage, to the waters of the Columbia river ; thence across the great basin and the Cascade Mountains to Puget's Sound, or descending the gorges of the Columbia for many hundred miles through the Territory of Oregon to the mouth of that river. This route, if practicable, after leaving the settled portions of Iowa, passes through a country without inhabitants a distance of some two thousand miles to Puget's Sound, and strikes the Pacific near a thousand miles, by the course of navigation, north of San Francisco, our great commercial emporium on that ocean. If nature had imposed no mountain ranges to obstruct the work upon

this route, its extreme northern latitude and the drifting snows of winter on the extensive prairies through which it passes, would present obstacles quite insurmountable. In addition to these objections, its great length, added to the distance from New York to its eastern terminus, would render it almost, and probably quite, useless as a channel of commerce. To communicate from San Francisco to Puget's Sound—its western terminus—would require at least half as much time and expense as would be required on the southern line from San Francisco to New York. It would, therefore, seem to be unwise, while the preservation of the union of the Atlantic and Pacific States appears to depend, in a great degree, on a railway connection between them, to delay the execution of the work in vain attempts to bring forward this extreme northern route as a rival of its southern competitor. The fortieth parallel of north latitude, the position of this city, is believed to be near the center of population of the free States ; so that 32 degrees, or the southern route, is not as great a deviation from that supposed centre as the northern line in latitude 48½ degrees. Therefore, if our efforts were solely directed with a view to ascertain the best route to the Pacific for the Northern States, the line of 32 degrees would unquestionably be selected without reference to the South.

As the examinations of the government engineers condemn all the intermediate routes, I shall pass them without comment, and proceed to consider that on the parallel of 32 degrees, through Texas and the country recently acquired under the Gadsden Treaty, to the junction of the Gila and Colorado, and thence through California to the Pacific. The charter of the Texas Western Railroad Company permits the work to commence at a point on the eastern boundary of that State, which will afford the greatest facilities for connecting it with the railways which are extending in that direction from St. Louis, Cairo, and Memphis, through Arkansas, by way of Little Rock and Fulton, from Vicksburg, Louisiana, to Shreveport, and from New Orleans, by the Opelousas Railroad, thus bringing the system of Railways throughout the Union, north and south, by converging lines, to that point on the eastern border of Texas and connecting them with the line under consideration to the Pacific. These railroads are all in a state of progress, and the means provided for their ultimate completion, which cannot be delayed beyond a very few years, and connecting as they do with the railways in the southern, middle, and northern states, their completion will open a railway communication from this and all other Atlantic cities, more than half the distance across the continent.

From the eastern boundary of Texas to the Pacific, on the route surveyed by Col A. B. Gray, the Engineer of the Texas Western Railroad Co., the distance is 1,621 miles, which will be very much diminished by the grade of the road, making it not far from twice the length of the Illinois Central Railroad. This is supposing the Road to strike the Pacific at the nearest point. If it be extended to San Francisco, the distance will be increased some five hundred miles.

The climate on this line is mild and salubrious, being free from snow and ice in winter, and the diseases caused in southern latitudes by miasm in summer. Uniting, as it will in a healthy region, with the railroads leading north and east, a transit over it at



all seasons of the year, will be safe and pleasant.

The lands reserved in Texas to encourage the construction of this work through that State, are not surpassed in fertility by any other portion of the Union. In fact, they produce in greater quantity and perfection than they are produced elsewhere, all the crops cultivated in the northern and southern states. It is beyond doubt the best grazing country on the continent. Wheat is produced in greater quantity to the acre, and a much heavier and more flinty grain, than is grown in the North-Western States. All the other serial grains in equal proportion. The product of cotton per acre is larger and of better quality, than in any other portion of the southern country. Edible roots of all kinds are produced in the greatest perfection. Sugar and molasses may be produced with facility.

Texas grants to the company making this road, in compliance with the terms of the charter, sixteen sections of these lands, or ten thousand two hundred and forty acres, for every mile of road constructed. If, after the work shall be completed, these lands prove to be worth five dollars an acre, they will produce a fund of \$51,400 per mile, or a reliable basis for a credit to that amount.

It is proper to remark that the emigration to this country will be composed of classes of persons in all respects different from those spread over the Government lands in the north-west. The Territories of the United States in which the government lands lie, do not produce cotton—the great staple of the South; nor does the government own any valuable bodies of cotton lands. These lands of Texas present the only great unimproved field for the culture of cotton now remaining to be occupied on the continent. Therefore, when this road shall be completed, the emigration to Texas, from all the slaveholding States, must be very large, and of persons who would not, under any circumstances, emigrate to the north-west. Therefore, the grants of land made by Congress to encourage the construction of railroads for military services can have no influence on the price of the lands which Texas offers in aid of the construction of this work.

As we proceed west of the Rio Grande into the country acquired under the Gadsden treaty, we come into a district which is considered to be almost as rich in gold as California, possessing also very rich silver and copper mines. The valleys and plains are very similar to those of California, and will probably be as productive. It is known that previous to the revolution in Mexico, which expelled the Spanish authority, this country sustained a large population, with numerous flocks of sheep, and herds of cattle and horses. It is, therefore, not a desert waste, as has been represented. The surveys which have been made through Texas, and from the Rio Grande to the Pacific, show that although there are some spots without timber, it can be procured without any great expense in transportation, in sufficient quantity to insure the completion of the work without greatly augmented cost. These surveys also show that water is found, or can be procured at small expense, in sufficient quantity on the whole route.

This line through Texas, which may at comparatively small expense, be connected with one or more of the ports in that State on the Gulf coast, presents great commercial advantages which cannot be claimed by the northern route. The voyage to the coast of

Texas, while it is nearly as direct as the course of any of the lines of railway converging towards the proposed route on 32 deg., accomplishes more than one half the distance to the Pacific, and leaves not more than sixteen hundred miles to be overcome by railway, so that while the passengers, mails, and packages by express would be accommodated with the facilities of railroad conveyance from all parts of the Union, the cargoes of package goods made up in this city, of foreign importations and domestic manufactures, destined for the Pacific and intermediate markets, would undoubtedly be sent by sea to the southern and Gulf ports, and thence by railway. The cost of freight from New York to San Francisco, by way of the Isthmus of Panama, is now about one hundred and twenty-five dollars a ton. If the railroad was completed from the coast of Texas, the expense would not exceed one half that sum, or about sixty dollars per ton. It is believed that this reduced cost, and the saving of time, would throw the entire transportation to the Pacific coast upon this line. Transportation by the express lines, by way of the Isthmus of Panama, to California, for all packages weighing over eighteen pounds to the square foot, is at the rate of seven hundred dollars per ton, and more for packages of less weight to the square foot; and yet, I have been informed that there have been times when the steamers on the other side could not convey away the merchandize as fast as it was delivered at Panama. The usual freights from New York around Cape Horn, I believe, have been in clipper ships, about \$40, and in ordinary vessels about twenty-five dollars per ton, to San Francisco. This contrast in the price of freights is a strong illustration of the great importance of saving time in commercial transactions, and of the laws of trade, which compel all merchants engaged in the same line of business to do that which, as a general rule, any one may accomplish with certainty, celerity, and profit. It is this competition which throws such vast quantities of freight, almost without regard to expense, into the steamers from Europe. No merchant can afford to wait, if he can avoid it, twenty or thirty days longer than his neighbor for the receipt of supplies of seasonable goods; therefore, the same necessity of competition which is now forcing such large quantities of merchandize through the expensive transportation in steamers, and across the Isthmus to California, will force the trade to our Pacific coast across the continent on the railway, whenever it shall be completed. In addition to this, it will readily be perceived that passengers to and from the Pacific will travel by the railway, and consequently the package goods must take the same route.

This course of trade would be facilitated and rendered more certain by the return freights, which steamers and sailing vessels bound for Southern and Gulf ports with package goods and passengers would be sure to receive.

With a view to form some idea of what may probably be the gross receipts of a railroad to the Pacific States, it may be useful to state as near as practicable what has been the emigration to and from them from 1849 to 1854 inclusive. It is believed that the population of California, Oregon, and Washington amounts to over three hundred thousand. It is also believed that an average of at least twenty-five thousand persons per annum have returned from those States for the six years above stated, making an aggregate

of one hundred and fifty thousand who have traveled both ways. The expense of the journey to the Pacific, including the price of passage, time and incidental costs and charges, has been estimated as high as three hundred dollars for each person. It will, therefore, not be considered extravagant if we take two-thirds of that sum—or two hundred dollars—as the average. This will give for the one hundred and fifty thousand who have made the passage to and from the Pacific, an expense of sixty millions of dollars. If we adopt the same rule with respect to the three hundred thousand who have remained, we have the same result—sixty millions of dollars—making an aggregate of one hundred and twenty millions for the six years, or twenty millions per annum, as the probable cost of this movement.

I have no data upon which to found a calculation of the amount paid for freight; and insurance of merchandize and gold dust, but the sum must be very large.

If we extend our view across the Pacific, we find that this railway, connected with steamers on that ocean, will reduce the time of passage from New York to Shanghai in China, to about twenty-five to twenty-eight days, and to Sidney, in Australia, to from thirty to thirty-four days. Intelligence across the continent by telegraph and thence to Shanghai in steamers, would be conveyed in eighteen to twenty-one days, and to Sidney in about twenty-two to twenty-eight days. The variation of time on the Pacific is given for the purpose of indicating what is supposed to be the average speed of steamers at present—say two hundred and fifty miles a day, and what is believed it may be hereafter—three hundred miles a day.

The distance between San Diego, in California, and Sidney, is fifteen hundred miles less than it is from the latter place to Panama; and at the present average speed of steamers on the Pacific—two hundred and fifty miles a day—passengers from Sidney would arrive at San Diego in six days less time than they would at Panama, and that being quite sufficient for the passage by railway to New York, passengers and gold dust would arrive here by way of San Diego in about the same time that they would reach Panama from Sidney. It is, therefore, supposed that all passengers and intelligence, and probably no small amount of light package goods from Europe to Australia, would be conveyed over this line, and that all passengers, gold dust, and intelligence from Australia for the Atlantic States and Europe, will take the same route. It will thus be seen that the completion of this work will virtually change the relative positions of the commercial nations of the world—that China, Japan, and Australia will become, in fact, commercially what they are now geographically, west from our Atlantic as well as our Pacific states, and that instead of being for all purposes of navigation on the west of both Europe and Asia, we should be placed almost midway between those two continents, and that all communications from the western nations of the former and the eastern nations of the latter, must necessarily pass over this line.

It has been remarked that it is believed Sonora is as rich in gold as California. The reasons why the gold mines of that portion of Mexico have not been worked, are because, since the overthrow of the Spanish rule, the government of Mexico have not protected the inhabitants, nor has it allowed them to carry arms to protect themselves against the incur-



sions of the Indians; consequently, all the northern and mining portions of the country have become almost depopulated, the people having been driven into the central and southern portions of the State to the rich valleys of the rivers, where, alone, they could in safety obtain subsistence. The completion of this work will throw open this rich district of country to American enterprise, and bring our people and commercial cities into direct communication with the three great gold fields of the world—Sonora, California, and Australia.

The emigration to the Pacific coast, notwithstanding the expense of time, money and exposure of health, on the various lines over which it has passed, may be regarded as a sufficient evidence of what it would be if a cheap, easy, and rapid line of communication were established, and new fields open to American labor. A gold field presents no attractions for the laborer, except the treasure which he collects; hence it is, that as soon as he has obtained an amount which meets his moderate views of competence, he returns to the home he has left. Consequently it will be found that the tide of travel upon this national line of communication will flow with nearly equal force in both directions. The preponderance will, doubtless, be towards the Pacific; but this will be composed chiefly of agriculturists, and persons engaged in trade—not of miners.

If we suppose these increased inducements will carry over the road two hundred thousand persons per annum, each way—a little more than double the amount of emigration to California, since 1849—at an average price of eighty dollars each, or five cents a mile on sixteen hundred miles of road, we have a gross receipt of sixteen millions of dollars. If we add to this five millions for government transportation of mails, munitions of war, troops, etc., and five millions for package goods to, and gold from the Pacific, way freights, and way passengers, we have a gross receipt of twenty-six millions, on an estimated expenditure of about forty-five to fifty millions, for the construction of the road from the eastern line of Texas to the nearest port on the Pacific; and probably not exceeding fifty-five millions to San Francisco. The fertile lands in Texas, through which the road will pass, will cause the items of way passengers and freights very soon to become large, and undoubtedly exceed the estimate.

The basis of a credit to raise the necessary means for the construction of this work may be stated—first, a grant from Texas of ten thousand two hundred and forty acres of land for every mile of road constructed within her limits, or for the supposed distance on the route indicated in the law, from the eastern line of the State, opposite the town of Shreveport, in Louisiana, to El Paso—seven hundred and eighty-three miles of road—7,017,920 acres, at five dollars an acre, would be \$35,089,600. An estimated engagement on the part of the United States to pay for a term of at least fifteen years, five millions per annum, for the transportation of mails, troops, and munitions of war, together with an appropriation of land through New Mexico acquired under the Gadsden treaty, of at least twenty sections to the mile, for a distance of 578 miles—or 7,398,400 acres. Also a proposed grant from Congress to the State of California, of thirty sections, or nineteen thousand two hundred acres of land per mile, for the distance the road may be constructed in that State.

It is true that Congress has not yet made these grants; but as they were, I believe, embraced in the bill which became very near becoming a law at the last session, they will, no doubt, be made at the next session of Congress. The grant, if made to California, may be so located as to be quite as valuable per acre as the lands in Texas.

It is of the utmost importance that the legislation of Congress shall be so framed as to authorize a contract to pay at least five millions per annum during a period of not less than fifteen years, for the transportation of the mails, troops, munitions of war, etc., etc., which, coupled with the grants of land above mentioned, would, I should suppose, form a sufficient basis of credit to enable the company to hold their lands until the completion of the entire work should render them valuable. It cannot be supposed that Congress, in view of the great national objects to be attained, can refuse or neglect to do this.

This road, if made at all, must be made by a private company. It cannot be made by the government—first, because Texas owns one-half of the line; and second, because works of this nature managed by government cost about four times as much as in the hands of a company; and this increased expenditure would, as has been proved in other cases, render the annual appropriations by Congress so uncertain and fluctuating, that the country would, after ruinous delays, be likely to become disgusted, and cause a sale, or a total abandonment of the enterprise. Whatever Congress does to aid this work, must be accomplished in one single act, making grants, which, becoming contracts, cannot be repealed.

The condition of the Pacific states, situated as they are, near six thousand miles, by the present route of travel, from the seat of the federal government and our commercial marts on the Atlantic, the time, risk, and expense of passing from one to the other, the time required for official communications, causing injurious delays in the execution of the law, have already produced so many evils, it is said the people of those States are seriously considering the expediency of providing a government for themselves, and it may readily be imagined that if steps be not speedily taken to form a more direct, rapid, and easy communication with them, these causes will only augment their discontent and render the threatened movement more easy and certain. If these dangers threaten in times of peace, what would be the condition of those States in time of war with a naval power? With our communications, circuitous as they are, with the Pacific coast entirely cut off, and a hostile squadron in quiet possession of all the harbors of California, Oregon and Washington, it would be impossible to give our fellow citizens their aid by sending supplies across the plains; and if we sent them men without supplies, they would only assist in consuming their scanty subsistence. The enemy would be on the water, and secure from any assault which they would be able to make upon him; but in a situation to render them perfectly powerless, to cut off their exports and imports of every description, and so deprive them of the comforts, and probably the necessities of life, as to drive them, in self-defence, to make the best terms he might be inclined to offer. A government once formed there by those people, under such circumstances, and with the proffered friendship and protection of the enemy, would not be likely thereafter to seek

a reunion with the Atlantic States. A war even with Spain, feeble as she confessedly is, would, beyond doubt, cut off our communications in steamers by way of the Isthmus with the Pacific coast, and deprive our Atlantic States of the supply of gold from California, or render its receipt so dilatory, hazardous, and uncertain, as greatly to affect the commercial prosperity of our whole country. It is probably not hazarding too much to say that the injury thus sustained in one year, would be greater than the entire cost of a railroad from the Mississippi to the Pacific; and that most of it would be inflicted upon the city of New York.

Therefore, in whatever light we regard this work, it presses itself upon our consideration as indispensable to the safety and prosperity of the Union. If speedily completed, it secures to us all the advantages we now possess, and opens new and vast fields of enterprise. If long delayed, the Pacific States threaten to form a government for themselves. If war comes before its completion, they will probably be driven to that course; so that every consideration connected with our position as a people, urges the completion of this work. That it offers a profitable investment of capital, there cannot, it seems to me, be a doubt.

Amidst all the uncertainty which prevailed eighteen months ago respecting the various routes proposed, and the apparent disposition of Congress to coquette with them all, without having ascertained the practicability of either, so as to know which to choose, there appeared but little probability that the government would adopt any efficient measures to encourage and aid the construction of this work. Feeling perfectly certain, as I did at that time, that there was not, within the territories of the United States, a practicable route for a railroad to the Pacific, I consented to unite myself with a company, for the purpose of lending my efforts to cause a survey to be made on the line of 32 degrees, in Texas, and from El Paso, through Chihuahua and Sonora, to the junction of the Gila and Colorado; and thence through California to the Pacific. In the progress of this survey the Gadsden treaty was formed, and the district of country through which it was progressing acquired from Mexico.

Mr. Andrew B. Gray, surveyor of the boundary commission under the treaty of Guadalupe, was the engineer employed in this service. The line surveyed by him runs some distance south of the Gila, and is much more favorable in all respects than the one surveyed by government along the southern bank of that river. In short, the route surveyed by Mr. Gray presents, over all others, such decided advantages with respect to easy grades, timber and water, and the general fertility and vast mineral and metallic wealth of the country through which it passes, that the line of the Gila, which is the only other known practicable route, cannot for a moment compete with it.

I am, with great respect, your most obedient servant,

T. BUTLER KING.

To Mathew Morgan, Wm. B. Astor, George Griswold, William S. Wetmore, Stewart Brown, Moses Taylor, Erastus Corning and E. D. Morgan.

RAILROAD BRIDGE BROKEN.—The stone bridge over the Principio, of the Baltimore and Wilmington Railroad, broke down to-day, precipitating six cars into the creek. No one was hurt.



## Miscellaneous and Mechanical.

## STRENGTH OF STEAM BOILERS.

We publish to-day an interesting communication from a correspondent on this subject.

Our correspondent has mistaken somewhat the gist of the remarks in the *Record* of Oct. 4. We did not then, and do not now, believe that the pressure on the ends of the boiler should be calculated in the manner proposed. The mode of calculation was erroneous, and its application to the ends of the boiler showed it to be so.

Our correspondent does not notice the danger of explosion from too little water and chemical action on red hot iron. Here we conceive the great danger lies. Boilers are rarely used at the pressure of steam, to which they were originally tested, and which they are capable of sustaining. Explosions are usually the consequence of ignorance or gross carelessness of the engineer in suffering the water to become too low and the iron too hot. This produces in the boiler an explosion of the gases of which the water is composed, and no ordinary strength of boiler plate would resist its action.

## EDITORS OF THE RAILROAD RECORD.

GENTLEMEN: I noticed some time since the erroneous estimates of the strength of steam boilers, and the erroneous modes of estimating that strength in the *Railroad Record*.

It is not my place or province to correct the errors of the public press, and should not notice those alluded to, but for the danger of loss of life and property that might result from not correcting the erroneous conclusions deduced in the articles on the strength of steam boilers in your issues of the 23rd of August and 4th of October.

The positions taken by W. C. C. are correct, except the mode of calculating the tendency to rend or burst in a cylindrical boiler 42 inches in diameter, under a pressure of steam of 150 pounds to the square inch, viz., "42  $\times$  150 = 6300 pounds acting upon one-half of a square inch, (the section of the band being 1 by  $\frac{1}{4}$  inch on both sides of the diameter) 12,600 pounds per square inch."

The proper way to estimate the strain tending to rupture the cylindrical boiler of the diameter, and under the pressure stated, is as follows, viz., multiply the circumference of the cylinder by the pressure of steam per square inch, gives the power in pounds that tends to rend each inch of the length of the cylindrical boiler. For a cylindrical boiler 42 inches in diameter and 150 pounds pressure of steam per square inch, it would be as follows, viz., 42 in.  $\times$  31,416  $\times$  150 lbs. = 19,792 lbs. This strain of 19,792 pounds tends to rend each inch in length of the cylindrical boiler, and if the boiler plate be  $\frac{1}{4}$  inch thick, this strain comes upon a cross section of  $\frac{1}{4}$

inch of iron = 1 inch broad by  $\frac{1}{4}$  inch thick. The tenacity or tensile strength of wrought iron ranges between 60,000 and 95,000 lbs. to the square inch, and for  $\frac{1}{4}$  inch is 15,000 to 23,750 pounds.

It is thus seen that the strength of a cylindrical boiler 42 inches diameter and  $\frac{1}{4}$  inch thickness of the boiler plate, to resist rending or bursting under a pressure of steam of 150 pounds to the square inch, lies between the limits of strength of wrought iron, and would be likely to burst under such a pressure, even if the rivets and holes do not weaken it. Such a boiler would not be considered safe to work under a pressure of steam of even 75 pounds to the square inch, under all the contingencies of ordinary working. The strain on a boiler of double the preceding size would be double, and would require boiler plate  $\frac{1}{2}$  inch thick to resist the pressure of 150 pounds to the square inch; and if only 21 inches diameter, boiler plate 1-8 inch thick would resist the same pressure. Whatever be the diameter, the tensile strain tending to rupture the boiler is directly proportioned to the diameter and to the pressure of steam on the square inch. In boilers of 42 inches diameter, and steam of a pressure of 150 pounds to the square inch, it is shown that there is constant danger of explosion, and if  $\frac{1}{4}$  of the tensile strength of the iron is as high a pressure as it is prudent to work, the steam in such a boiler should not be worked at a higher pressure than 37 $\frac{1}{2}$  lbs. to the inch, or about 2 $\frac{1}{2}$  atmospheres.

The errors in the calculation, and the danger to be apprehended from an erroneous calculation or an erroneous statement being received and adopted by boiler manufacturers, is still worse in the article on the strength of boilers in the *Railroad Record* of the 23rd of August. It is true that the tensile strength of iron is such that a strip of boiler plate one inch wide and quarter inch thick, would require a power of 15,000 pounds to rend it, or draw it in sunder; but it is not true that such boiler plate in the form of a boiler would sustain a pressure of 15,000 pounds to the square inch; nor that it would be safe to work it with a pressure of steam of one-fourth of that, or 3,750 lbs. to the square inch. It has been shown that a pressure of steam of 150 lbs. per square inch, in a cylindrical boiler 42 inches in diameter, would produce a tensile force tending to rend or burst it of 19,792 lbs. on each quarter inch section of the boiler plate, which is more than the usual tensile strength of wrought iron. From what precedes it is evident that instead of its being safe to work steam at 3,750 pounds pressure to the square inch, it is not safe to work steam in the ordinary sized cylinder boilers of 42 inches diameter, at more than one-hundredth of that pressure, or 37 $\frac{1}{2}$  pounds to the square inch. Steam, with a pressure of 15,-

000 pounds to the square inch, could be worked, perhaps, in tubular boilers of  $\frac{1}{2}$  inch interior diameter, and having a thickness of  $\frac{1}{4}$  inch of boiler plate iron all around the bore of the tube, without bursting.

Again, in the remarks appended to the article of W. C. C., the estimated pressure on the boiler heads is erroneous. It has no relation to the length of the cylindrical boilers, but only to the areas of the boiler-heads, and the pressure of steam per square inch. The pressure on the boiler-heads of 42 inches diameter, under a pressure of steam of 150 lbs. to the square inch, is equal  $\pi r^2 p = 3.1416 \times 21^2 \times 150 = 3.1416 \times 441 \times 150 = 1385.4456 \times 150 = 207816$  pounds on each end of the boiler = to something more than 100 tons. This is also the amount of force tending to rend each of the boiler-heads from the cylinder boiler plate to which each of them is riveted.

The strain or pressure that tends to rend the boiler-heads from each inch in length of the boiler plate around the cylinder to which it is riveted, under the above dimensions and pressure, is 207816

$$\frac{207816}{131.94} = 1575 \text{ pounds.}$$

In the following formulae, which may be useful:

$\pi$  represents the ratio of the circumference of a circle to its diameter.

$r$  The radius or semidiameter of a cylindrical boiler in inches.

$p$  The pressure of steam per square inch in pounds.

1. The pressure tending to burst the cylindrical boiler for each inch in its length is  $2\pi rp$ .

2. The pressure on each head of the cylindrical boiler tending to rend it from the boiler is  $\pi r^2 p$ .

The force tending to rend the boiler-heads from each inch of the circumference of the cylinders to which they are riveted is  $r \times p \div 2$ .

W. W. M.

## DEATH OF AN EDITOR.

We regret to receive a copy of the *Memphis Eagle*, shrouded in black for the death of J. Watkins Smith, Esq., one of its editors. The *Eagle* gives the following short synopsis of Mr. Smith's career:

Mr. Smith was about thirty-five years old, and was a native of Huntsville, Alabama. Only one of his parents—his mother, to whom he was most tenderly attached—is living. He was a practical printer, having learned the business many years ago at Huntsville. From Huntsville he went to Murfreesboro' in this State, where, with his brother W. H. SMITH, Esq., he established and carried on, for a year or two, a political journal. From Murfreesboro' he went to Nashville, and was for several years connected with the press of that city, in various capacities. Previous to taking up his residence in this place in 1853, he was for a short time, we believe, upon the editorial staff of a New Orleans journal.







## Monetary and Commercial.

| RAILS OF EXCHANGE. |            |          |         |       |
|--------------------|------------|----------|---------|-------|
| Place.             | Time.      | Buy'g.   | Sell'g. |       |
| On New York.....   | Sight..... | par..... | 1/4     | prem. |
| Boston.....        | Sight..... | ".....   | 1/4     | prem. |
| Philadelphia.....  | Sight..... | ".....   | 1/4     | prem. |
| Baltimore.....     | Sight..... | ".....   | 1/4     | prem. |
| New Orleans.....   | Sight..... | ".....   | 1/4     | prem  |
| England.....       |            | 108      | 109     |       |

## SPECIES

| GOLD.                       |         |   |         |
|-----------------------------|---------|---|---------|
| California clean, p oz..... | \$17 60 | @ | \$17 65 |
| Spanish Doubloons.....      | 16 75   | @ | 16 75   |
| Patriot Dobloons.....       | 15 75   | @ | 15 80   |
| Sovereigns*.....            | 4 86    | @ | 4 88    |
| Guineas.....                | 5 00    | @ | 5 00    |
| American, new.....          | 1 00    | @ | 1 00    |
| American, old.....          | 1 06    | @ | 1 06    |
| Portuguese.....             | 1 00    | @ | 1 00    |

SILVER.

| SILVER.                |      |                 |      |
|------------------------|------|-----------------|------|
| American Dollars.....  | 1 03 | $\frac{1}{2}$ @ | 1 04 |
| American Halves.....   | 1 03 | $\frac{1}{2}$ @ | 1 04 |
| Spanish Dollars.....   | 1 14 | @               | 1 14 |
| Spanish Quarters.....  | 1 00 | @               | 1 01 |
| Mexican Dollars.....   | 1 04 | @               | 1 05 |
| Five Franc pieces..... | 97   | @               | 97   |

\* The standard English value attributed to the Sovereign is \$4.44, in London. This with exchange added, say from 9½ to 11 per cent., gives the American value of the English coin.

AT THE STOCK BOARD.

MERCHANTS' EXCHANGE.

AND AT PRIVATE SALE.

BY HEWSON & HOLMES.

## BONDS.

For the week ending November 7, 1855.

|         |                                                                                 |             |
|---------|---------------------------------------------------------------------------------|-------------|
| \$5,000 | Little Miami R. R. Co., 6 per cent.<br>Bonds, due in 1883.....                  | 80½         |
| 3,000   | Coving. & Lex. R. R. Co., 7 per<br>cent. 2nd Mort. Bonds.....                   | 65 (& int.) |
| 6,000   | Ohio & Miss. R. R. Co., 7 per cent.<br>2nd Mort. Bonds.....                     | 48 "        |
| 2,000   | Cin. Western, now Cin. & Chicago<br>R. R. 8 per cent. Real Est. Bonds, 40 "     |             |
| 2,000   | Cin., Wil. & Zanes. R. R. Co., 7 per<br>cent. 2d Mort. Bonds.....               | 65 "        |
| 1,000   | Cin., Ham. & Dayton R. R. Co., 7<br>per cent., due in 1880.....                 | 85 "        |
| 200     | Cin., Logansport & Chicago R. R.,<br>10 per cent. Notes due in 1856.....        | 45¼ "       |
| 100     | Cin., Cambridge & Chi. Short Line<br>R. R., 10 per ct., Bonds due in 1856, 42 " |             |

## STOCKS.

|     |                                 |     |   |
|-----|---------------------------------|-----|---|
| 55  | Shares Cin. & Chic. R. R.       | 11% | " |
| 200 | " " "                           | 11  | " |
| 100 | " Ohio & Miss.                  | 7   | " |
| 20  | " " "                           | 7%  | " |
| 38  | " Indiana Central.              | 45  | " |
| 30  | " Cov. & Lexington, (30 days)   | 24  | " |
| 163 | " Cin., Harrison & Indianapolis | 7%  | " |
| 10  | " Little Miami.                 | 93  | " |
| 40  | " Cleveland, Columbus & Cin.    | 100 | " |
| 206 | " Marietta & Cincinnati.        | 20  | " |
| 47  | " Ohio & Miss.                  | 5%  | " |

## LONDON QUOTATIONS

OF  
AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF  
E. F. SATTERTHWAITE, STOCK BROKER, LON.  
Oct. 5, 1855.

|                                              |      |   |      |
|----------------------------------------------|------|---|------|
| Belvidere, Del., guar. 1st mort., conv. .... | —    | @ | 87   |
| Chicago & Rock Island, Mort., conv. 1858,    | —    |   |      |
| Cin. Ham & Dayton, 2d mort., .....           | —    | " | 80   |
| Erie, 3d Mortgage, 1883, .....               | 83   | " | 85   |
| " Sinking Fund, .....                        | 78   | " | 80   |
| Galena & Chicago, .....                      | —    | " | 87   |
| Grand Trunk (Canada) Debenture, .....        | 90   | " | 92   |
| Great Western " conv., .....                 | 114  | " | 117  |
| " " non-conv., .....                         | 103½ | " | 106½ |
| Illinois Central, 1st Mort., 7's, .....      | 70   | " | 72   |
| " " with option 70 per cent.                 | —    |   |      |
| shares till Jan. 1858, .....                 | 76   | " | 77   |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill.   | —    |   |      |
| Cent., .....                                 | 63½  | " | —    |
| Little Miami 1st Mort. not conv. 6's, .....  | —    | " | —    |
| Marietta and Cincinnati, 1st Mort., .....    | —    | " | 80   |
| Michigan Central, conv., 8's, .....          | 90   | " | 92   |
| N. York Central, No Mort. Not conv., .....   | 81   | " | 83   |
| " " conv., .....                             | 93   | " | 95   |
| Ohio and Mississippi, 1st Mort., .....       | —    | " | 81   |
| Ohio and Pennsylvania, Income 1872, .....    | —    | " | 81   |
| Ontario, No mort. conv. 1856, .....          | —    | " | 99   |
| Pennsylvania, 1st Mort., conv., .....        | 90   | " | 91   |
| " " Sterling, 2d Mort., .....                | 90   | " | 91   |
| Stapenville, and Ind., 2d Mort., .....       | —    | " | —    |

The quotations given are sterling quotations. The American value is to be obtained by adding on exchange generally about 10 per cent.

The past week has been one of greater stringency in the money market, than has been experienced for some time. This is due to the reaction of the pressure on the eastern money markets, and this again the financial embarrassments in Europe. The tide of the monetary world is sure to be felt wherever civilization extends, and although in some places it may rise and fall but little from the great waves that disturb it in others, yet that little proves its action. We of the interior, with our bountiful crops of cereals and high prices and comparatively small debts have not much to fear, the balance must by degrees be in our favor, and whatever the state of Europe may be, if we act as prudent men, we are safe.

The discount houses have not discounted as freely during this week, as previously. We quote rates at 8 to 12 per cent. for prime paper, and 12 to 24 for lower grades.

Our stock market has caught some of the panic noticed in New York circles, but is less affected by it, as speculation rarely runs as high here as in New York.

From the East we learn that the money market has not yet regained its tone. It is in an unsettled and unsatisfactory condition. Large amounts of gold are shipped, although exchange is low, lower than what is usually considered the shipping point. We quote European exchange at 8 @ 8½ per cent.

Stocks were somewhat more in demand, but prices were vacillating.

NEW YORK STOCK SALES, Nov. 5.

|                              |      |
|------------------------------|------|
| 2,000 Tennessee 6's, '90     | 93   |
| 2,000 Virginia 6's           | 93   |
| 5,000 Missouri 6's           | 84½  |
| 25,000 Illinois Central      | 74   |
| 1,000 Chic. & R. I. R. R.    | 91   |
| 50 Shares Erie R. R.         | 42½  |
| 100 " Reading R. R.          | 79   |
| 50 " Harlem                  | 18   |
| 100 " Mich. Cent.            | 89   |
| 200 " Mich. So. and No. Ind. | 86½  |
| 15 " Panama                  | 100½ |
| 100 " Ill. Cent.             | 92¾  |
| 100 " Galeua and Chicago     | 112  |
| 100 " Clev. and Tol.         | 61½  |
| 100 " Chicago & R. I. R. R.  | 85   |

## IMPROVEMENT IN THE MANUFACTURE OF CAST AND MALLEABLE IRON.

Prof. Frederick Grace-Calvert, of Manchester, has patented an invention, the object of which is to obtain a better quality of cast and malleable iron from certain iron slags or cinders, known by the names of puddling refinery, and heating slags or cinders, than is effected at the present day. The usual way of applying these slags or cinders on a blast furnace consists in adding them, either alone or mixed with ironstone, without submitting them to any previous preparation, except sometimes burning them in a heap. The consequence is, that as they descend in the furnace they are soon carried to a bright red heat and fused, and get mixed with the various materials which compose the charge of a blast furnace. A portion of these slags or cinders, falling on mine or coke, is not fluxed, and thus gradually finds its way to that part of the furnace where cast iron is being produced, and uniting with it, descends into the cupola or the blast furnace. It is easy to understand how the above iron slags or cinders, mixing themselves with the cast iron, injure its quality, for iron slags or cinders are chiefly composed of silicate, sulphuret, and phosphuret of iron, which act most injuriously on the quality of cast and malleable iron.

The mode of operating, so as to effect the complete fluxing of the above slags or cinders, and thus prevent the silica, sulphur, and phosphorus arriving in contact with the cast iron which is being produced, is as follows:—The first process consists in reducing the above puddling, refinery, and heating furnace slags or cinders into coarse powder, which is

done by any of the ordinary mills and grinding apparatus now in use, and then adding to them about one-half their weight of slaked lime, made into a thick paste. They are then well mixed together, and the mass is made into lumps or bricks of a convenient size, which are dried or not, according to circumstances, previously to adding them at the top of the blast furnace; or the dried lumps of lime and slag or cinders may be calcined in a separate furnace, and afterwards introduced, with ordinary mine, at the top of the blast furnace; or the mass of lime or slag may be mixed with coal, coke, or charcoal, and calcined in a furnace, or introduced into crucibles, and thus separate the iron which it contains previously to its addition on the blast furnace. The patentee remarks, that heating slags or cinders generally, do not require roasting, but that refinery and puddling slags often do.

The second process consists in roasting or oxidizing the iron slags or cinders before they are mixed with slaked lime. To oxidize these slags or cinders two different processes are adopted. The slags are reduced to fine powder, and introduced into an oxidizing furnace, such as is used for roasting copper ores; and whilst the powder is carried to a dull red heat it is well stirred, so as to transform the iron or the protoxide of iron it contains, into peroxide, the silicium into silica, the prosphurets, into phosphates, and the sulphur into sulphurous acid. When the powder has assumed a bright red color, and no more sulphurous acid is produced, it is taken out of the furnace and mixed with slaked lime, and applied as above described.

The same purpose is attained by breaking the slags or cinders into small fragments, and introducing them with a small amount of coal into an ordinary kiln, or in one made of four walls which have numerous holes in the sides; the object of which is to admit freely the oxygen of the atmosphere, and which holes are also employed to remove the oxidized slags or cinders. These kilns are worked like ordinary limekilns—viz., the slags or cinders, mixed with a small quantity of coal, are constantly added at the top, whilst the oxidised slag or cinder is removed at the bottom by the opening or openings which exist there, and then the prepared slags or cinders are treated with slaked lime, as before described.

The third process to which the patentee submits puddling, refinery, or heating slags or cinders, is to reduce them into a powder, and introduce them into furnaces which communicate with the blast furnace by means of long flues, into which the volatile products given off from the mouths of the blast furnace or of the coke oven are passed. When the powdered slags or cinders are not sufficiently heated by the gasses for these to act upon the component parts of the slags or cinders, a gentle heat is applied, so as to carry them to a dull red heat; then the silicates of protoxide of iron are decomposed, and metallic iron is produced. When the operation is completed, they are taken out and allowed to cool. Such reduced slags or cinders having been made into powder, are to be treated with slaked lime, in manner before described.

The patentee claims the use of hydrate of lime, or slaked lime, in combination or intimately mixed with heating, puddling, and refinery iron slags or cinders, both before and after calcining the latter.—*London Mining Journal*.



**SOUTH PACIFIC RAILROAD.**—On the 16th ultimo, Lieutenant Parke, of the United States topographical engineers, with his party of survey, arrived at San Antonio, Texas, from the West by the El Paso road. The surveying party consists of Lieutenant John G. Parke, United States topographical engineers, commanding; A. H. Campbell, civil engineer; N. H. Hutton, H. Custar, assistants; G. G. Garner, astronomer; Dr. Antisell, physician and geologist. This party has been in the field actively engaged since 22d of November, 1854. From that date until the close of May last they were engaged in California. On the 26th of May they left San Diego and reached the Rio Grande at Fort Fillmore on the 6th of August, having spent most of the interval in the examination of that extensive and almost desert country which borders the Gila.

According to the statement of the San Antonio papers, Lieutenant P. has been highly successful in his explorations; which go to prove that the line examined near parallel 32 deg. is the shortest and easiest route to California, requiring no tunneling, there being no steep ascents, and goods can be carried over the whole route; and by avoiding Tuscan and striking for the Gila, which receives the San Pedro, the long and dreaded hornado of ninety miles may be avoided. Even as a wagon and emigrant route, this new one proposed and travelled by Lieutenant Parke in this expedition will save distance and fatigue to animals, as more grass and water are to be had than by the "commission-boundary" route, or "Colonel Cook's trail." By proceeding almost due west from Cook's Springs, by Ojo de Vacca, a series of valleys running north and south is reached, bounded by short ranges which can be travelled round—these valleys locking round into each other, and tending north-west to the Gila river, which may be struck where the fertile little valley of San Pedro (the Rio Chiquito of the Apaches,) meets that river; in this course every mountain range is avoided, and a country well supplied with gamma grass is travelled over.—*Baltimore American.*

**RAILROAD FROM OSHKOSH TO WAUPUN.**—We are glad to learn that the Winnebago Railroad Company have decided to connect with the Milwaukee and Horicon Railroad at Waupun, and expect to build the road from Oshkosh to Waupun, within the next twelve months. The Horicon road is making good progress, and will be opened to Waupun within thirty days after the La Crosse Road is finished to Horicon. As this will probably occur in all next month, there is good reason to hope that we shall have a direct railroad communication with Waupun and Fond du Lac before the new year.

**HEMPFIELD RAILROAD.**—The *Wheeling Intelligencer* says the Work at the Depot of the Hempfield Railroad in that city was commenced on Friday of last week, and adds:

"All the track between Wheeling and West Alexander is ballasted, ready for the rails, which will all be laid between these two points, it is anticipated by the first of January next. A large portion of the cross ties and rails are in readiness, and distributed along the track. We are truly glad to observe these and other evidences of the early completion of this important work."

**HICKMAN AND OBION RAILROAD.**—We learn from the *Hickman Argus*, that the new Directory elected several weeks ago, consists of the following gentlemen:

G. W. L. Marr, Island No. 10; W. W. Gleeson, Alfred Gardner, Dresden, Tenn; Robt. Matson, J. H. Dodus, Fulton, County Ky; P. S. Jones, O. F. Young, F. H. Wilson, A. D. Kingman, Chas. Hubbard, E. B. Fuqua, Hickman, Ky.

At the organization of the new Board, the former officers were re-elected, viz: A. D. Kingman, Pres.; O. F. Young, Treasurer; Frank Roulhac, Sec'y.

### Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

## New Railroad Map.

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States collected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

|                                                          |        |
|----------------------------------------------------------|--------|
| Plain Lithograph.....                                    | \$0.50 |
| Colored Boundaries.....                                  | 0.75   |
| Backed with muslin and varnished ready for moulding..... | 1.50   |
| Mounted.....                                             | 2.00   |

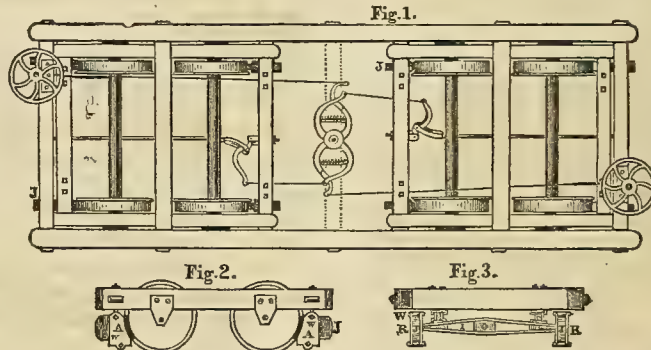
Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers. Railroad Companies wishing a large number to circulate with reports, or to supply their various offices, will be allowed a corresponding discount. Orders addressed to

T. WRIGHTSON & CO.,  
Publishers R. R. Record,  
167 Walnut St.,  
Cincinnati, Ohio.

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

We, the undersigned, hereby certify that we have seen the operation of a Railroad Car Brake, now in use on the Rutland and Burlington Railroad, invented by Mr. Lucius Paige, of Cavendish, in the State of Vermont, and are satisfied that it is the cheapest (taking into account repairs, &c.) and the best thing of the kind now in use.

|                                                 |                                           |
|-------------------------------------------------|-------------------------------------------|
| JOHN S. DUNLAP, Supt. R. & B. R. R.             | E. WHITCOMB, Conductor R. & B. R. R.      |
| M. G. LITCHFIELD, Master Mechanic R. & B. R. R. | P. R. DOWNER, Conductor R. & B. R. R.     |
| JOSIAH BOWTELL, Conductor R. & B. R. R.         | J. F. STINSON, Road Master, R. & B. R. R. |
| A. W. WHITCOLLE, Conductor R. & B. R. R.        | DANIEL ARMS, Conductor R. & B. R. R.      |
| SILAS L. PIERCE, Engineer R. & B. R. R.         |                                           |

We, the undersigned, hereby certify that the Car Brake illustrated upon the preceding page, is now in use on the Lowell Railroad, and having made a satisfactory trial thereof, most fully accord to it a great superiority over any other Brake in use, embodying especially the advantages above set forth, and recommend it as being in all respects superior to any other.

June 15, 1855.

C. B. KING, Master of Machinery.  
ENOCH HALE, Car Builder.  
JARED CUSHING, Car Builder.  
E. D. COLBY, Car Builder.  
B. F. BAILEY, Car Builder.

WILLIAM SNELL, Car Builder.  
EDWARD FOWLE, Car Builder.  
WM. H. PETTINGELL, Depot Master.  
DAVID R. KIRBY, Conductor.  
P. A. PEABSON, Machinist.

The names above signed are those of practical men in our machinery department. Mr. King being widely known for his skill and good judgment, and any addition from me appears to be superfluous—but at the request of the patentee or inventor, I can and do cheerfully say, that the mechanical features of his plan are such as make the Brake superior to most, and second to none with which I am acquainted.

Nov. 1.

WM. PARKER, Agent B. & L. R. R. Co.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,  
T. WRIGHTSON & CO.,  
187 Walnut Street, Cin., O.**

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**

**Railroad Depots and Station Houses,**

at current rates. **L. A. OSTRUM,**  
Aug. 16. No. 6 West Third Street, Cincinnati.

**RAILROAD IRON.**

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via. Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired.

**WALKER & BERRY,** Quebec & Kingston, Canada.  
**BERRY & WALKER,** Liverpool, England.  
Kingston, C. W., Sept. 15, 1855.



**T. N. RAFFINGTON,  
GENERAL ENGRAVER,**

North-East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,

**CINCINNATI.**

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

**Bank Notes, Drafts, Bills of Exchange,**

**RAILROAD BONDS, & CERTIFICATES**

Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE**

**ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence  
with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**

**BILLS OF EXCHANGE, CHECKS,**

**Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, Coun-  
ty and Hand Seals, &c., &c.**

Constantly on hand, Bank Note Paper, made to order  
of a superior quality.

The above office is under the supervision of  
**GEORGE T. JONES,**  
South-East corner of Main and Fourth Sts., Cin.

**MIDDLETON, WALLACE & CO.,**

**LITHOGRAPHERS & ENGRAVERS,**

No. 115 Walnut St., Cincinnati.

**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
Beautifully executed and at moderate rates.

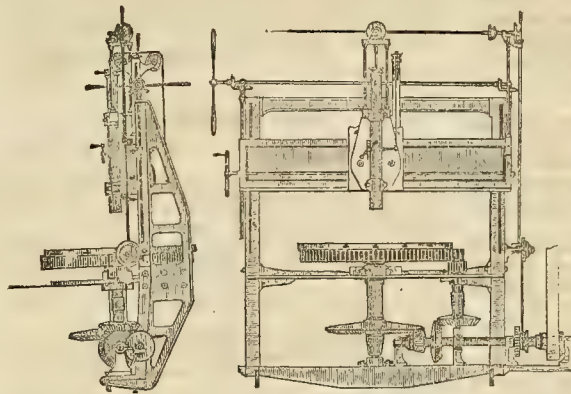
**Maps, Portraits, Views of Build-  
ings and Cities, Notes, Drafts, Bills  
of Exchange, Show Cards, &c.**

Engraved in all styles and on short notice.

**NILES' WORKS.**

**FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &c., &c.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well  
known class of

**ENGINEERS' & MACHINISTS' TOOLS,**

SHAFTING, GEARING,

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad  
and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES.**

Suited for Locomotive and Repair Shops, Car Fac-  
tories, etc., etc.

**To Railroad Contractors.**

SEALED proposals will be received at the office of  
the Edgfield and Kentucky Railroad Co., in Nash-  
ville, Tenn., until Saturday, Dec. 15th, 1855, for the con-  
struction of their Road, from Nashville to the Kentucky  
Line, where it meets the Hudson and Nashville Railroad  
to Hudson on the Ohio River. The E. & K. Railroad  
is about forty-eight miles long, through a country well  
adapted to railroad construction, and the work will be  
divided into sections of about one mile each, which may  
be bid for separately or the whole road included in one  
proposition. Proposals may also be made to build the  
thirty miles only next to Nashville, either by single  
section or in one contract.

There are on the road, one tunnel half a mile long,  
heavy rock work at various points, and two large  
bridges. Maps, profiles and plans will be ready for ex-  
amination by Dec. 1st, and any information may be ob-  
tained by addressing the undersigned.

**SAM'L WATSON, President.**

**A. ANDERSON, Chief Engineer.**

Nashville, Tenn., Oct. 20, 1855.

Nov. 1.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY.

**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines,  
25 tons weight; 10 wheels, 6 drivers and truck  
Two of the Engines now ready for delivery, and four  
in the course of three months. Our Coal Burners are  
used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage)  
Pennsylvania Central; Manassas Gap & Orange & Al-  
exandria, Georges Creek Co.'s road, Central Ohio, and  
Ohio & Penna.; and for their durability and economy  
of repairs, and economy of fuel, we refer to the officers  
of the above roads.

Orders for freight or passenger engines deliverable on  
or after the first of December, solicited.

Address, **THATCHER PERKINS,**  
**President.**

Also, for sale, two Twenty Horse Power Stationary  
Engines.  
Aug. 9 41

**THE SCHENCK  
MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**

No. 163 GREENWICH STREET,

**NEW-YORK,**

**KEEPS** constantly for sale, Tools suitable for Rail-  
road Repair Shops, and having connection with  
some of the largest Establishments at the East, is pre-  
pared to furnish Tools of any description. Also the  
principal Manufacturer of the justly celebrated Wood-  
worth's Patent Planing Machines in forty different va-  
rieties. Slide and Hand Lathes, Iron Planing Machines,  
Sash and Tenoning Machines, Mortising Machines, Up-  
right Drills, Chucks, Steam Engines, and Boilers, Pumps  
of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented  
and copper riveted. Warranted superior to any made.  
Orders respectfully solicited.

**A. L. ACKERMAN, PROPRIETOR**

Aug. 9 ly

**D. D. MILLER,**

Manufacturer of

**LOCOMOTIVE, RAILROAD AND HAND**

**LANTHERNS,**

**190 Water Street New York.**



**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,  
Railroad Record Office, 167 Walnut St. Cin.

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

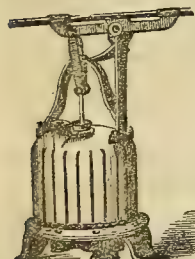
172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; we have adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—ly

**IRON BOILER FLUES.**

PASCAL IRON WORKS.

**MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.

**TO CONTRACTORS.**

PROPOSALS will be received at my office, in Tazewell, Claiborne county, Tennessee, until the 30th day of August, for the masonry of two bridges, (over Clinch and Holston Rivers), for the Cincinnati, Cumberland, and Charleston Railroad.

The above bridges are high, (one 56 feet and the other 80 feet) and very long. The work must be commenced immediately after day of letting, so as to "put in" the foundation during the low water of the Fall months.

I will also receive proposals until the 18th day of October, for the Graduation and Masonry of that part of the above mentioned Road, lying between Bean's Station, Granger county and the town of Newport, Cocke county, (30 miles). The above work is heavy, and well worthy the attention of contractors. The terms of payment will be wholly CASH.

R. L. OWEN, Chief Engineer.

Aug. 2, 1855.

aug 2 12w

**THE KENTUCKY MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

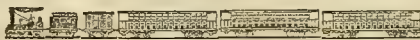
The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned,

P. DUDLEY,

President of the Board.

ly 26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.53 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

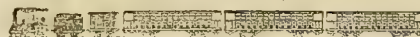
The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853.

Sept. 29-1f.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 22½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

**TERRE HAUTE TO INDIANAPOLIS.**

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY JUNE 25th, 1855.

Trains will leave the Sixth Street Depot at follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsboro, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M. LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,  
St. Louis, Chicago, Galena & Rock Island,  
BY THE WAY OF THE  
CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

Feb. 8-ly

WM. H. SMITH, Conductor.

D M MORROW, Superintendent.



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful handling of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

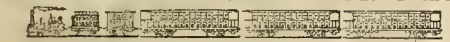
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
Baltimore.

**TO LOUISVILLE  
IN SIX HOURS.**

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M., and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 10 P. M.

FREIGHT—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4. East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,  
Chief Engineer and Superintendent.

Onnibuses run from the principal hotels, and call on orders left at the Ticket Offices.

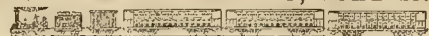
Onnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Onnibus Line,  
Office No. 2 Burnet House.

**STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of  
**STEREOTYPING,**  
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of  
**Card and Job Type, Cuts, Rules, &c. &c.**  
from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.  
C. F. O'DRISCOLL,  
108 1-2 Vine Street, Cincinnati, O.

**1855. New Arrangement, 1855****COMMENCING MONDAY, JULY 16.****LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.**

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAI'D WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," said with heavy iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route. CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¾ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30½ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburg in.....    | 14 "      |
| To Philadelphia in..... | 30½ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

FIVE DAILY TRAINS.  
FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177 front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

ISAAC W. HUNTER, Superintendent.  
A. C. BARRETT, Gen. Freight Ag't.  
Indianapolis, October 1, 1855

**Covington and Lexington Railroad.**

OPEN to Paris.—Direct Railroad connection with Lexington, Frankfort and Louisville.

Two Daily Passenger Trains.

On and after MONDAY, Oct. 9th, 1854, and until further notice, Trains will run as follows:

Express Train leaves Covington at 7 o'clock, A. M., stopping at Grant's Bend, New Philadelphia, Canton, Benton, Clarkson, Demosville, Butler, Irving, Falmouth, Cullenville, Boyd's, Berry's, Robinson's, Gar nett's, Cynthia, Laird's, and Kiser's, and arriving at Paris at 11.30 A. M.

Returning, Leave Paris at 12 o'clock M., stopping as above, and arriving at Covington at 4.35 P. M.

Through passengers by this train connect directly at Paris with Maysville and Lexington Road, and arrive at Lexington at 1 o'clock P. M., connecting at Lexington with the stage lines for Danville, Winchester, etc., and with the afternoon train of the Lexington and Frankfort road, for Frankfort and Louisville.

Returning, Leave Lexington at 10 o'clock A. M., and arrive at Covington at 4.35 P. M., in time for the Evening Express Trains North and East.

The Accommodation Train leaves Paris at 5.30 A. M., stopping at all regular and flag stations and arriving at Covington at 10.25 A. M.

Returning, leaves Covington at 2.40 P. M., stopping as above, and arriving at Paris at 7.35 P. M.

Through passengers by this train, lie over night at Paris, and arrive at Lexington at 8.30 next morning.

Freight Trains leave Covington daily, Sundays excepted, at 2.40 P. M.; freight received up to 12 M., for the train of same day.

**RATES OF FARE.**

|                             |        |
|-----------------------------|--------|
| Covington to Lexington..... | \$3 00 |
| Covington to Paris.....     | 2 40   |
| Covington to Cynthia.....   | 2 00   |

**FOR THROUGH TICKETS.**

Apply at the Cincinnati, Hamilton and Dayton Railroad Ticket Office, W. A. Latham, Agent; Little Miami Railroad Ticket Office, P. W. Strader, Agent; or at the Depot, Covington. J. M. DOUGHERTY,  
Superintendent.

The Omnibus Line will call for Passengers in any part of the city, by leaving directions at the above offices  
oct. 17\* CLAYTON & GRANT.

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

VIA LAWRENCEBURG.  
In connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via, Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.  
Office, foot of Main Street, corner of Water Street.  
SIDNEY RICE,  
Agent.

Cincinnati, Nov. 1, 1855.

W. G. ATKINSON,  
Civil Engineer, Surveyor & Draftsman.

CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated,  
Maps and Reports furnished; Researches made for

Coal, Iron, Copper, Lead, or other Minerals,  
Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists.

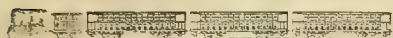
Mines explored, new Works laid off, and Geological plans prepared.

mar-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNYS & PECK,

Je-S-14

Louisville, Ky.

**Norris' Locomotive Works,**

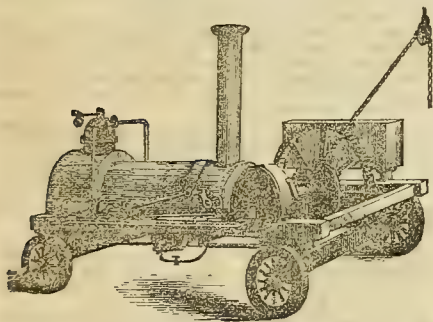
PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch

RICHARD NORRIS & SON.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Brinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

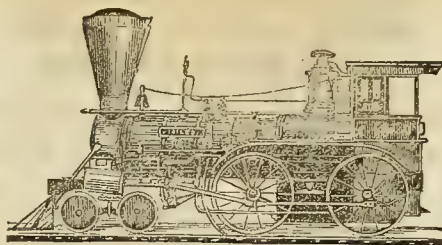
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DURAND, FULTON and TILTON.

Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 percent, below that of most boxes in use. They will save about 75 percent, in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.**

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery.**

THIRD STREET, (west of Burnet House.)

CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames'

Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car,

Conductor's, Signal, Switch, Stoker and other

Lanterns. Drawbridge and cross Road

signal Lights; Gum Packing and

Hose, assorted Car Trimmings,

Enamelled head and seat

Linings, Plated and

White Metal Letters.

—ALSO—

Machinists' Tools,

particularly adapted to

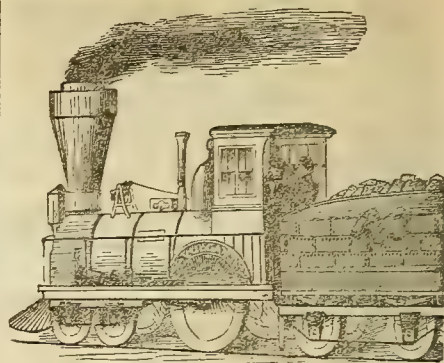
Railroad Work, Mill Work,

Shafting and Shop outfits, Punch-

ing and Shearing Machines, for Boiler

Work; Planers, Lathes, Drills, Portable

Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap-20 MOORE & RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. & E. Wason, Springfield, Massachusetts.

**Railroad Car Findings,**

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Casting Fit Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,** From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS** Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers.

Cambridgeport, Mass.

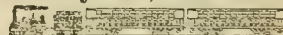
ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.

to c6

**CAR MANUFACTORY,**

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops, are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

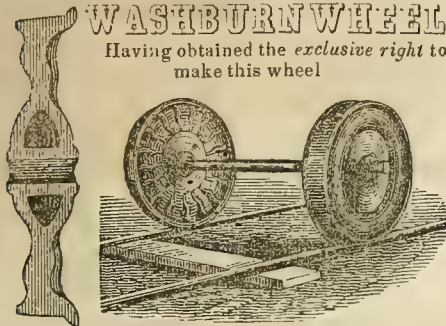
Dayton, Jan 24th. 1852.

Jan. 25th



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



### WASHBURN WHEEL

Having obtained the *exclusive right* to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

**Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16r\*

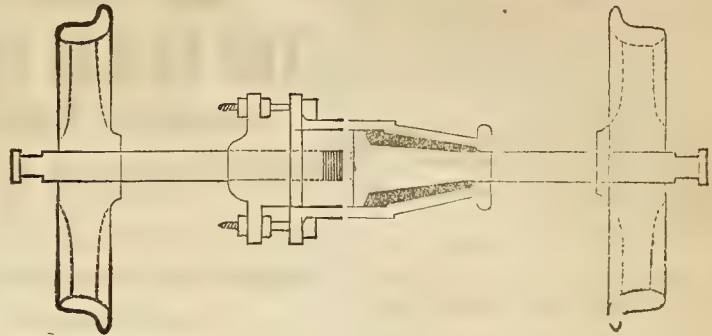
JOSEPH DAVENPORT.

## S. C. THOMSON & CO., MANUFACTURERS OF

### PATENT PAD LOCKS,

For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n.12t NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads; the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

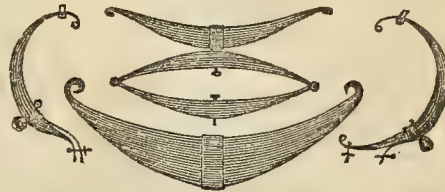
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

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Christiana, Pa.

Or, to **CHRISTIAN UNBLE,**  
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I. R. TRIMBLE, Supt. Philad. R.R. Co.  
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### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a.  
Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "  
Charles H. Fisher, Esq. "  
Jno. Caldwell, Esq. Pres't S.C.R.R. Co. Charleston, S.C.  
Pinckney Huger, Esq., Pres't N.E.R.R. Co. "  
Oct. 13-14



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

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### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation.

WILLIAM B. FOSTER, JR.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blain Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBARDI, Superintendent.  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—DEAR SIR:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES,

For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES,

For Railway Wheels. Railway Axles and Springs,  
SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

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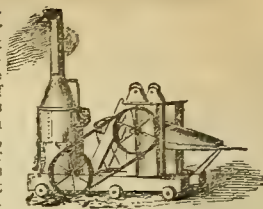
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PLATT STREET, New York!

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

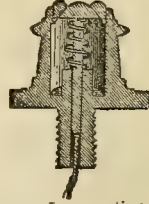
The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,  
15 Walnut st., Cinti.

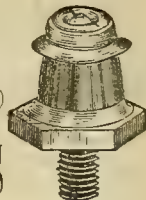
N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



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CUPS



For Locomotive and Stationary Engines. For sale by  
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# Railroad Record.

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J. A. JAMES, }

CINCINNATI:

THURSDAY MORNING,.....NOVEMBER 15, 1855.

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CINCINNATI, Nov. 13, 1855.

MESSRS. T. WRIGHTSON & CO.,

Publishers of Railroad Record,

GENTLEMEN,—You will please allow me to answer in your Record, numerous enquiries as to how long the opportunity of subscribing to the stock of the Texas Western Railroad Co. will be afforded at 5 per cent. instalments, or for cash 10 per cent. discount therefrom, by quoting a resolution of the stockholders at their meeting in New York Sept 10, 1855, viz.:

"That only 25 millions of the stock of this Company be disposed of, on which the assessments are limited to 5 per cent., etc."

The stock is being rapidly subscribed, and the probability is, that many who are procrastinating will be favored ere long with the privilege of taking stock, at a material advance, over 5 per cent. Such an unprecedented opportunity for profitable investment cannot long remain unimproved. Those who design to take the stock, should do so immediately.

Yours respectfully,

EDGAR CONKLING,  
105 West 4th St., Cincinnati.

VOL. III.—No. 38.

### ORIGIN AND PROGRESS OF RAILWAYS—THE ANCIENTS AND MODERNS.

MR. WENDELL PHILLIPS, one of the itinerant lecturers recently employed by the Mercantile Library Association, of Cincinnati, to enlighten the public, is reported, by the reporter of the Cincinnati Gazette, to have said that the ancients had steam and railways! We assume the report to be correct; for we have recently found the gentlemen of the press to be more correct, than some of those whose speeches they report, are in their statements. If Mr. Wendell Phillips did say that, he is either the most learned or the most ignorant man of the day. If true, he is the only man got the news. If not true, he has made the statement in the face of all the learned men of the times.

Has Mr. Phillips any information not possessed by other educated men, in regard to what the ancients did know? As all the discoveries made in Egypt, Assyria, Babylonia, and Edom, have been recorded by the discoverers themselves and published to the world, they are accessible to all learned inquirers, and there is no information of the sort exclusively possessed by Mr. Phillips.

What, then, is the result of all modern discoveries? Why, that the ancients had no such things as Mr. P. attributes to them. Let us refer for one moment to the authorities. De Goguet, President of the Parliament of Paris, published a most learned work on the origin of Laws, Arts, and Sciences. He traces the knowledge and arts of the ancients down to near the Christian Era, and no such things as Steam Machines, Locomotives or Railways are even hinted at. The ancients were in as absolute darkness on the subject of Steam Machinery, as they were on the nature and revelations of the true God. About 1800, Napoleon in his expedition to Egypt, took with him the most learned savans of France, that they might explore and record the monuments, arts, and wonders of Egypt. They made a most accurate survey, and there was not the least evidence of anything like steam machinery. Since that the ruins of Herculaneum and Pompeii, two Roman towns, buried in lava, in the height of Roman civilization, have been excavated, and nothing of the sort found. Since then, we have had the interesting researches of Champillion, Rossellini, Layard, and others, laying open all the social life of Egypt and Assyria, and where is the evidence of any steam machinery? Absolutely no where; not the least scintillation of its existence.

We refer to this specially, because it is within our own province, and because we hold that men, who being put in the place of instructors to the public, substitute fiction for fact, and assert what (to say the least,) they do not know, do a moral wrong to the public. If the lecturer really has any new evidence of the existence of such social arts among Egyptians,

Romans, Greeks, or Hindoos, why has he not communicated it to the learned societies, and why have they not assented to the fact, and ante-dated the discoveries of which we boast?

The truth is, there is no learned man who has the least evidence of any such knowledge among the ancients, although he may be willing to guess at it in the fervor of his antiquarian zeal.

Mr. P. commenced his lecture, by affirming self-conceit to be one of the most marked characteristics of the moderns, and verily if the men who are now spouting before the public as philosophers, savans, and scholars, be taken as examples, the proposition will be confirmed.

But, in spite of that, we believe the moderns have done something to improve mankind; that we have some men of real learning and science, and that we have some new arts, most valuable and useful to society.

The STEAM LOCOMOTIVE OR RAILWAYS is one of these. Like many other great improvements, it has been slow in reaching great utility. Steam may be said to be known by the whole world, in one sense; for the evaporation of boiling water in a pot, is nothing more nor less than the simplest form of a steam boiler. But its whole power is in the application. The simple steam engine was used, as far as we know, first by Captain Swassy in the Coal Mines of England, more than two centuries ago. About the same time, wooden rails were laid in the New Castle Mines, as conveniences for sliding coal along. But the two machines were not connected. Iron rails were used in 1778, about 80 years since.

The grand step in steam locomotion was made in the invention of the Locomotive, which was contrived, we believe, by the great English Engineer, R. B. STEVENSON. This was made in 1824. Now, to illustrate the rapid advance in the rate of speed, we give the following example:

|                                 |                   |
|---------------------------------|-------------------|
| The first locomotive moved..... | 6 miles per hour. |
| The Rocket in 1829.....         | 15 " " "          |
| The Firefly in 1834.....        | 20 " " "          |
| The North Star in 1839.....     | 37 " " "          |
| Locomotives in 1847.....        | 70 " " "          |
| A Trial Engine in 1853.....     | 100 " " "         |

We then see that a steam locomotive has attained the marvellous rate of 100 miles an hour. There are those among us, who believes that this will yet be attained as a practical every-day speed. But, suppose that a long line of railway is run, at what we know to be now a practical rate, viz: 33 miles an hour, or 100 miles in three hours. Then, we shall go 1,000 miles in 30 hours, which is now very nearly attained between Cincinnati and New York; and we shall go from Cincinnati to the Pacific Ocean in three days; but if fifty miles an hour be the rate, we shall go in two days; and such a rate, we believe, will be



reached with far more safety, than that on many of our roads now running but half that rate.

But the practical results of any one locomotive or railway—marvelous as they are—are overshadowed by those of the wonderful labor and capital expended upon them in a very short time. In only twenty years, the United States have built *twenty thousand miles of railway, at a cost of six hundred millions of dollars!* The great Memphis Pyramids required twenty thousand men for twenty years to complete, at the expense of vast exactions from the people; but the American Railways now employ one hundred and fifty thousand men per annum; and the money which they cost has been voluntarily raised by a free people. The ancients neither knew of such works, nor was it possible with their governments and civilization ever to have made them. It required a new movement of the human mind before they could have been either made, or be understood, or be useful. It required an era in the world, when mind as well as body, needed motion; when they should minister to each other; when commerce and liberty gives wings to knowledge; when geographical discoveries had opened new continents, and when, in one word, the world was ready for a new and vast movement in its social and intellectual economy. We have come to that period, and we shall be false to our own and our father's labors, if we grope among mouldering monuments and fallen temples, and stone lions, and petrified arts of other ages, for what is wholly the work of our own times, and our own hands. We close this brief sketch with the following facts we find in another paper, but the substance of which we have heretofore published in the *Record*.

"In 1847, the extent of Railways in the world was as follows:

|                                | Miles. |
|--------------------------------|--------|
| Great Britain and Ireland..... | 10,323 |
| United States.....             | 3,800  |
| Germany.....                   | 1,870  |
| Holland.....                   | 200    |
| Belgium.....                   | 1,095  |
| France.....                    | 2,200  |
| Italy.....                     | 115    |
| Denmark.....                   | 106    |
| Cuba.....                      | 800    |
| Russia.....                    | 52     |
| British Colonies.....          | 1,000  |
| East Indies.....               | 500    |

"Total length of Railways throughout the world in 1847, was 21,726 miles.

"The number of miles of Railway in operation upon the surface of the globe in January 1855, was 40,344; of which 17,020 are in the Eastern, and 23,324 are in the Western Hemisphere, and which are distributed as follows:

|                    | Miles. |
|--------------------|--------|
| Great Britain..... | 7,774  |
| Germany.....       | 5,340  |
| France.....        | 2,480  |
| Belgium.....       | 532    |
| Russia.....        | 422    |
| Italy.....         | 170    |
| Sweden.....        | 75     |
| Norway.....        | 42     |
| Spain.....         | 60     |
| Africa.....        | 92     |

|                        |        |
|------------------------|--------|
| India.....             | 100    |
| United States.....     | 21,598 |
| British Provinces..... | 1,327  |
| Island of Cuba.....    | 359    |
| Panama.....            | 50     |
| South America.....     | 60     |

"The longest railway in the world is the Illinois Central, which, with its branches, is 731 miles in length, and has been constructed at a cost of \$15,000,000. The number of miles of railway in the United States exceeds the rest of the world by the amount of 2,712 miles!!

"The average cost of English roads is not far from £60,000 (\$165,000) per mile, and ours about \$35,000. There are about 7,000 miles of Railway in Great Britain, which, together with the rolling stock (technically called 'plant,') cost altogether in round numbers \$1,500,000,000; in British currency, three hundred million pounds sterling.

"The total number of Railways completed in the United States is 271; the number of Railways in the course of construction is 174; the number of miles in operation, 21,528, which have been constructed at a cost of more than \$700,000,000. The number of miles in the course of construction is 15,738.

"The State of Massachusetts has one mile of Railway to each seven square miles of its geographical surface; Essex County, in that State, with a geographical surface of 400 square miles, has 150 miles of Railway facility; which is a ratio of one mile of railway to each three square miles of its surface."

#### STATISTICS OF LIFE AND MORTALITY.

From the following returns of interments in New York, and which, as the subject has there been systematized for many years, may be taken as accurate, we can infer the present laws of mortality there.

By the returns of the Census for July, 1855, the aggregate population was 623,000. Hence it may be assumed, that at the close of 1854, the population was in round numbers 600,000. By this report, then, we have the following results for the year 1854.

|                                                 |            |
|-------------------------------------------------|------------|
| Total population.....                           | 600,000    |
| " number of deaths.....                         | 28,568     |
| Annual proportion of deaths.....                | 1 in 21    |
| Deducting still-born, and premature births..... | 1 in 23    |
| Of the whole number of deaths, there were of    |            |
| Diseases of the Lungs and Throat.....           | 1 in 14    |
| Diseases of the Stomach, and Bowels.....        | 1 in 4     |
| " " Head.....                                   | 1 in 14    |
| " " Heart.....                                  | 5.1 in 130 |
| " " Skin.....                                   | 1 in 25    |
| " of Fever.....                                 | 1 in 25    |
| Unknown diseases of Children.....               | 1 in 13    |
| Of Old Age and Debility.....                    | 1 in 50    |
| Of Intemperance and Insanity.....               | 1 in 130   |
| Of Accidents.....                               | 1 in 54    |
| Of Suicide.....                                 | 1 in 4,500 |
| Of Murder.....                                  | 1 in 800   |

The catalogue of mortality thus exhibited is terrible. There are some facts standing out, which denote *principles*, and which might be profited by, if men would only learn anything by experience.

1. We see that New York city, (without

any special epidemic,) has a mortality nearly equal to that of the city of New Orleans, with all its fearful pestilence.

2. When we look to the *causes* of these, we find it almost exclusively owing to a *vicious civilization*.

The existence of that viciousness is demonstrated by the diseases which have caused death. Thus, it is *not* consumption, that great destroyer, which has swelled this catalogue of death. It is *first*, the death of infant children, occasioned by suffocation in a great city. *Second*, increase of diseases of the stomach, occasioned by city life, by vice, and intemperance; and *thirdly*, by casualties, suicides, and murders, caused by intemperance, and want. It is unnecessary to recount the entire list of deaths, which come under these heads; but we copy the following as examples of what we mean:

|                                 |       |
|---------------------------------|-------|
| Deaths by Cholera Infantum..... | 2,509 |
| " by Convulsions.....           | 2,183 |
| " by Dropsy in the Head.....    | 1,079 |
| " by Merasmus.....              | 1,711 |
| " by Diarrhoea.....             | 1,106 |
| Aggregate.....                  | 8,608 |

Here are more than 8,000 deaths, none of which are from constitutional causes; but are simply *symptomatic* of other causes. They originate in *confined* or *close air*, in *improper* or *bad food*, and in *unnatural excitements*. The proof of this is conclusive, in the facts (*first*), that none of those come within the epidemic, or the usual constitutional diseases, and (*secondly*), that the average mortality of country life is not much over *one-half* of what it is in the city of New York. A vicious civilization has drawn large masses of people from the country to the cities, who have neither the means nor the intelligence to guard against the evils of city life.

But again, let us look into the catalogue of some of the deaths derived *directly* from vice, or artificial life. And here, let us remark, that the story is never *half told*. Consumption and fevers are continually charged, with a great number of diseases, which are due only to vice. Yet, we have left, a frightful list of deaths by vice and crime:

|                                                           |     |
|-----------------------------------------------------------|-----|
| By Delirium Tremens and Intemperance.....                 | 187 |
| By Insanity.....                                          | 15  |
| By Suicides.....                                          | 59  |
| By Murder.....                                            | 32  |
| By Drowning, Shooting, Falls, and Various Casualties..... | 450 |

The last are, certainly, not all due to vice; but it must be recollected, that a large number of what is called *accidents* are caused by intemperance, or the pursuit of some other vice. Probably one-half of the 450 deaths by casualties, are due to some cause of that sort.

In the early settlement of the country, *fevers* were the dreaded agents of death, and recently, we have seen towns desolated by the yellow fever; but here is a city where fevers become insignificant in comparison



with diseases, which artificial life in a great measure has produced. Here are *ten thousand deaths*, which are neither fevers, nor consumption, nor cholera, nor small pox, nor measles, nor whooping cough, nor any epidemic, nor any constitutional causes. Are we not right in saying they are due, in great part, to a *viceious civilization*?

We extract the following general summary from the report of the City Inspector, just published for the year 1854:

|                                                                                                                                                                |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Total number of deaths reported for interment during 1854.....                                                                                                 | 28,563 |
| Deduct the number of Still-born.....                                                                                                                           | 1,615  |
| "    "    Premature Births.....                                                                                                                                | 435    |
| "    "    ".....                                                                                                                                               | 2,050  |
| Deduct the number of Malformation, (various).....                                                                                                              | 147    |
| Deduct the number of old age.....                                                                                                                              | 180    |
| "    "    ".....                                                                                                                                               | 2,377  |
| Deduct the number of other causes, (sudden).....                                                                                                               | 123    |
| "    "    ".....                                                                                                                                               | 2,500  |
| Leaves the number of deaths occurring from disease and casualties.....                                                                                         | 26,068 |
| Deduction made of the number of deaths from various Casualties, Suicides, etc., noted as injuries, as per table of "External causes," amounting in all to..... | 743    |
| Leaves remainder to represent the total number of deaths from Disease alone, amounting to.....                                                                 | 25,325 |
| Total number of Whites reported.....                                                                                                                           | 27,867 |
| "    "    of Blacks.....                                                                                                                                       | 701    |
| "    "    ".....                                                                                                                                               | 28,568 |
| Number of male adults.....                                                                                                                                     | 5,746  |
| "    "    children.....                                                                                                                                        | 9,519  |
| "    "    ".....                                                                                                                                               | 15,265 |
| Number of female adults.....                                                                                                                                   | 4,936  |
| "    "    children.....                                                                                                                                        | 8,367  |
| "    "    ".....                                                                                                                                               | 13,303 |
| Total number of adults.....                                                                                                                                    | 10,682 |
| "    "    of children.....                                                                                                                                     | 17,886 |
| "    "    ".....                                                                                                                                               | 28,568 |

During the year there were 259 deaths caused by apoplexy, 290 by bronchitis, 2,509 by cholera infantum, 301 by cholera morbus, 571 by congestion of the brain, 240 by congestion of the lungs, 3,032 by consumption, 2,183 by convulsions, 637 by croup, 374 by debility, 119 by *delirium tremens*, 1106 by diarrhoea, 286 by dropsy, 1,079 by dropsy in the head, 859 by dysentery, 141 by erysipelas, 517 by scarlet fever, 383 by typhus fever, 141 by puerperal fever, and six by *yellow fever*. Of these yellow fever cases, one occurred in April in the 10th Ward, one in July in the 20th Ward, one in August in the 21st Ward, two in September in the City Hospital, and one in October in the 5th Ward. There were 206 deaths by disease of the heart, 340 by whooping cough, 365 by inflammation of the bowels, 448 inflammation of the brain, and 1137 by inflammation of the lungs, 15 by *insanity*, 68 by *intemperance*, 1,711 by Marasmus, 362 by measles, 180 by *old age*, 611 by small pox, (whether any of the deceased by this disease had been vaccinated is not reported,) 39 by *coup de soleil*, and 49 by lock-jaw.

Among the cases of accidental deaths, we notice that two persons were killed by blasting rocks, one by capstan bar, one by being crushed, one by explosion, 95 by falls, one by injuries to chest, one by injuries to spine, one by injuries to abdomen, one by injuries to leg, 3 by kick of a horse, one by lightning, 28 by railroad, 3 do. by injuries to head, 14 by being run over, 7 by shooting, one do. in the arm, one do. in the chest, one by steam engine, one by upsetting of a stage.

By casualties not particularly specified, 25 persons perished, 183 were drowned, one was executed, 3 died from exposure, one from being frost-bitten, 23 from effects of the heat,

one from inhalation of chloroform, one from strangulation by a piece of orange, and 5 from suffocation. A number of deaths were caused by fracture, reported as follows:—One fracture, 2 do. of the arm, 6 do. of the leg, one do. by railroad, 3 do. of the leg and thigh, 2 do. of the neck, one do. of the pelvis, etc., 39 do. of the skull, 11 do. of the spine, one do. of thigh.

The number of suicides was 59; of which there were by arsenic, 3; laudanum, one; by cutting the throat, 10; by drowning, 3; by hanging, 14; by jump from window, inj. head, one; by laudanum, 11; by opium, 2; by poison, (!) one; by prussic acid, one; by shooting, 7; do. in the head, 3; by stabbing, one; by strychnine, one.

The number of persons killed or murdered was 32, as follows: killed or murdered, 4; by blow on the head, 3; by fracture of skull, one; by injury to brain, one; by shooting, 4; by shooting in the head, one; by stabbing, 10; by stabbing in the abdomen, 2; by stabbing in the chest, etc., one; by stabbing in the heart, 3; by stabbing in the side, one; by strangulation, one.

#### CLEAN CARS AGAIN.

We ventured a remark or two a few weeks ago on the comfort of travelling in neat, well-swept and well-dusted cars. The trouble with railroad cars is not that there are not persons to take care of them. There are generally enough to do that, but those persons have not the right ideas of neatness; they think when they have carefully swept the floors and dusted the seats, that the car is clean. Now, this is not so. There are windows, window frames, and various mouldings, and projections that are apt to become loaded with dust, and leave a portion of it attached to the passenger who sits near them. These should all be cleaned, and cleaned well.

Now the Cleveland & Columbus Road is a model road in this respect, and well deserves the compliment. The cars are always well swept and well dusted, windows bright, and everything is neat. We need not say how much it adds to our personal comfort when we ride, to ride clean; every one can appreciate the comforts of cleanliness. It is to be regretted that every road is not exactly as neat and as clean as this one. If some others do not improve, we shall be apt to speak out.

#### WHERE SHOULD A CONDUCTOR BE.

There are many who think that when a Conductor has collected fare or a ticket from every passenger, and seem that every one is comfortably seated, his duties are at an end, and he may dispose of himself as he sees best—read, smoke, or lounge as he chooses. For ourselves, we think otherwise.

It is true a Conductor is not expected to handle the brakes, or drive the engine, or put up the bell rope, or mend the fires; all this he is not expected to do, and if he does his other duties properly he has no time for menial offices. But he is expected to see that others do all these things; and more, as he is the highest authority on the train, he is expected to be constantly on the alert, watching in case of dan-

ger or accident, and by his promptitude and efficiency to inspire similar feelings in those who act under his directions. Away with the idea that a Conductor is a mere collector of fare. The man who thinks thus is unworthy of the trust reposed in him. He is a mere hireling and cares not for the safety of the lives entrusted to him. He should be in every sense the *conductor in safety* of his train, and should danger appear, be always ready to direct the most efficient means to avoid it. Yet we saw the other morning one of these men, who had at that very moment nearly *two hundred* passengers in charge, after he had collected all the fares, sit down yawning by the stove, and pull out sleepily a newspaper and begin to read. The morning was wet and unpleasant, just one of those days in which trains are usually behind time, and danger might be most expected on a single track road.

We thought of Burlington and other similar catastrophies, and said within ourselves how unfit that man was to hold such a place. And we will say it in public, too, if such things are not changed.

MISSISSIPPI AND MISSOURI RAILROAD.—We have been honored with an invitation to attend the opening of the Mississippi and Missouri Railroad, the first railroad constructed in Iowa. This is a link about twenty miles in length, from Rock Island to Muscatine, and a part of the great line *intended* to run from Rock Island to Council Bluffs.

We congratulate the people of Iowa on having *commenced* a system of railways, which, in time, will be of immense benefit to the State.

#### A SUBSTITUTE FOR TEA.

We find the following in the *Baltimore American*. If such a substitute as is here mentioned has been discovered, it will be a matter of great utility to the people of Europe and America. But we confess to a doubt. There are a great variety of plants, which, at different times, have been used instead of Tea and Coffee; but none of them have stood the test of "time and of human scrutiny." The great virtue, or rather the popular effect of the tea and coffee is found in their remarkably exhilarating and pleasant aroma. It may be doubted whether any other plants fully possess it. The reader may know what the chemists have decided by analyses, that the *primary principle* of tea and coffee is the same, which may be, and probably is the reason, why we are agreed in the use of both. But to the article:

"Among the announcements of the day is one to the effect that a botanist in one of the interior towns of France, has discovered a native plant, which furnishes an infusion closely resembling in color, aroma and taste, an infusion of the black tea in China. The matter having been brought to the atten-



tion of the Emperor, a committee of examination was appointed, and M. Perie, on his return to Cahors, sent them a package of his dried wild herbs. The Committee spent several months in its investigation, and has but lately made its report. The Minister of Agriculture has just written to M. Perie, that besides the qualities of taste, smell and color, which are those of the best China teas, the new infusion is tonic and slightly astringent. The grand question of price, he added, is all that requires to be elucidated. The botanist replies that the plant is a common and thus far, unserviceable weed; and that, even if cultivated, it may easily be produced at the price of twenty cents a pound. The Presse is delighted with this discovery, which is indeed one of more than ordinary interest, especially as it is stated that one pound of the French weed yields five hundred cups of tea, and requires only ten minutes of preparation."

#### RAILROAD COAL FREIGHTS.

We have heard some complaint from Coal Dealers in this city of the prejudice their business suffered on account of the high rates of freight over the C. & P. R. R., which led us to examine the matter somewhat, and we give below a comparative statement of prices charged on several of the heaviest coal carrying roads.

The Cleveland and Pittsburg Railroad charge per ton of 2,000 lbs. 1 3-5 cents per mile for haulage use of road and cars, or 1,60 for 100 miles over ascending grades of 36 and 50 feet per mile, and at about the same rate for short distances.

The Reading Railroad Company, on level and ascending grades, charge 2 1-5 cents per ton of 2,240 lbs. per mile, or 2,00 for 92 miles from Mt. Carbon, Schuylkill County, Pa., to Richmond.

The total charges per ton from Pine Grove, Schuylkill County, Pa., to Baltimore, a distance of 126 miles, are as follows:

Dauphin and Susquehanna Railroad, ascending grades of 33 feet per mile, Pine Grove to Pennsylvania Railroad, 36 miles, 45 cents, or 1 1/4 cents per mile.

Pennsylvania R. R., including wheel toll on cars, 5 miles, 23 cents, or 4 3-5c per mile.

Cumberland Valley R. R., bridge at Harrisburg, 1 mile, 13 cents.

Northern Central R. R., ascending grades of 52 and 60 feet per mile, for haulage on 84 miles to the city of Baltimore, 1.44 cents, or 1 1/2c per mile.

Total charges from Pine Grove to Baltimore, 2.25 cents, or about 1 4-5c per mile for the whole distance.

The Reading and Northern Central Lines have to compete with the Schuylkill Canal which would have a tendency to reduce prices to the lowest figure, and then the amount of business to be done is enormous when compared with the present business of this kind to be done by the C. & P. Road. The quantity sent over the Reading and Northern Central Railroads last week was 47,312 tons, while the amount transported over the C. & P. Road was but 1,591 tons. If, with all the facilities and advantages of those eastern roads, they are compelled to charge an average of 2 cents per mile, it would seem that 1 3-5 cents per mile for the C. & P. Railroad under the circumstances, is not exorbitant; but we shall examine further and report.—*Clev. Gazette.*

## Railroads.

### ANDROSCOGGIN AND KENNEBEC RAILROAD.

We have been favored with the Annual Report of this Company, from which we glean the following information.

"The following table shows the amount of cash bonds issued, and also the amount now outstanding.

| CLASS OF BONDS. | AMOUNT ISSUED. | OUTSTANDING. |
|-----------------|----------------|--------------|
| \$200,000.....  | \$200,000 }    | \$ 58,000    |
| 350,000.....    | 350,900 }      |              |
| 100,000.....    |                | 1,900        |
| 250,000.....    |                | 26,700       |
| 1,000,000.....  |                | 969,200      |
|                 |                | \$1,055,100  |

"Of the stock bonds which were authorized to be issued in 1853, payable in ten years, one hundred and five thousand dollars remain unsold, and as two years of that time has expired, there is an unwillingness with stockholders to take these bonds with only eight years to run. We believe it would be for the interest of the company to order these bonds issued on ten years, and also to order an issue of \$100,000 additional, as contemplated and secured by the mortgage, unless a better method can be devised for the payment of the floating debt of the company.

"We have closed a contract with the Grand Trunk Railway Company after much delay and negotiation, on terms, which if not wholly satisfactory, are such as the Directors thought proper to accept rather than seek some other avenue to reach Portland, as instructed at your last annual meeting. These Roads are so well calculated to do a joint business on terms mutually beneficial, and with convenience to the public, that it is to be hoped, no trifling consideration, or unreasonable demand on the part of either Company, shall impel a separation.

"Under the contract which has been in operation between the two companies during the last year, that company have received \$60,556, 36 from transacting the business coming to and going from this road between Danville Junction and Portland, a sum that must be regarded as exceedingly liberal for a business, the great majority of which would never have reached their road but for the construction of this.

"We have also closed a contract with the Directors of the Penobscot and Kennebec Railroad Company, for running and operating our road in connection with theirs for the term of two years from the time the former road shall be completed and opened for traffic through to Bangor. These roads are on the same gauge, of nearly the same length, and in all respects adapted to a connection, economical and profitable to the two corporations. When the present contract expires, experience and a more full development of the workings of each road, will enable those who

may have the authority, to extend the present contract with such alterations as equity may demand.

"We have been unable to make a satisfactory arrangement with the Androscoggin Railroad Company, for carrying their traffic over our road."

The following extract from the Report of the Superintendent, will convey an idea of the present condition of the track:

"Former reports of your board show, and it is well known to the stockholders, that the iron on that portion of the road between Lewiston and the south line of Belgrade was laid down, in 1849 chiefly, upon hemlock and black ash cross-ties. In all there were between 40,000 and 50,000 of them laid down. Such materials will not last, in the exposed position in which railroad cross-ties are placed, longer than from five to seven years. The company must, therefore, expect about this time to remove these from the track, and to replace them with new. At the beginning of the current year it was found that a very large portion of these cross-ties had become so much decayed, as to be no longer safe to remain in the track. As no considerable stock of these had been procured during the winter of 1853-4, the company were obliged to purchase, during the summer and fall of 1854, as they could find them, and at rates higher than usual, a number sufficient to put under the track, and keep it safe during the winter. During the year, about twenty-five thousand cross-ties, chiefly cedar, have been purchased and put under the track to replace such as were decayed; this has required also an unusual quantity of new spikes and chairs to be used. In addition to this source of expenditure, the wear of the trains in previous years began the last summer and fall to show itself upon the rails; many of them at the beginning of the last winter had become battered, chiefly at the ends, so as to make the surface rough and unsafe for wheels in passing over it. The company had on hand no surplus iron to replace all of these rails, and so portions of them have been taken out from time to time, and the few surplus rails on hand put in their place. The battered ones have been brought into the shop and repaired and returned to the track, and others brought in for repairs, and this process has been kept up through the winter and spring, until between seven and eight hundred in all have been welded up with new iron, and replaced in the track. The large stone abutment also at the easterly end of the Rice Bridge for want of suitable backing stone used in its construction, seemed likely to fall in the early part of the year, and during the last fall it was entirely taken down and rebuilt in a permanent and substantial manner; the expenses of which have been charged as repairs of track.



The earnings of the road for the year ending June 1st, 1855, have been:

| EARNINGS.                                                                              |                                    |
|----------------------------------------------------------------------------------------|------------------------------------|
| Passengers.....                                                                        | \$97,540 00                        |
| Freight.....                                                                           | 85,190 08                          |
| Mails, etc.....                                                                        | 7,474 72                           |
|                                                                                        | <hr/> \$190,604 80                 |
| The expenses of all kinds have been.....                                               | 67,950 98                          |
|                                                                                        | <hr/> Net Earnings.....\$90,797 07 |
| The Construction account for all purposes<br>amounted at the date of the report to.... | \$2,078,133 35                     |
| The total equipment account amounted to.                                               | 166,887 39                         |

#### FINANCIAL CONDITION OF THE GALENA & CHICAGO UNION RAILROAD.

OFFICE OF THE G. & C. U. R. R. Co.,  
Chicago, Oct. 18th, 1855.

The Board of Directors, by resolutions adopted at their meeting on the 19th instant, authorized the creation and issue of an amount of stock equal to ten per cent. of the Capital Stock of this Company, by which each stockholder will be entitled to receive an additional amount of stock, equal to ten per cent. upon the number of shares held by him on the 15th day of November next; provided that the holder or holders of stock at that time shall, on or before the 15th day of December next, signify in writing to the Secretary, their acceptance of the same, and shall pay therefor as follows: One-half thereof on or before the 1st day of January next, and one-half on or before the 1st day of February next.

The stock created as above, may be consolidated into full paid shares on and after the first day of February next, and will be entitled to all dividends declared after such consolidation.

For all fractional sums less than \$100, the Secretary will issue a Convertible Script, which will be redeemable in the full paid shares when presented in sums of \$100.

For the first payment due January 1st, 1856, the Dividend Certificates of February 1st, 1855, will, at the option of the holder, be received, and the accrued interest thereon (11 months) allowed. The cash dividends of February 1, 1856, will probably pay the second payment due on that day.

At the present time there remains only about five miles of track to lay, to enable the trains to run to Fulton City, on the Mississippi river. The iron for this is west of Buffalo, and will, no doubt, reach here in a few days. When this five miles is laid, the whole of the roads of the Company will be in full operation. Ten miles of the double track, from Chicago to Junction, are laid and used; about seven miles more are graded and await the iron, which is expected daily. The iron for all the double track now contemplated (30 miles) has been purchased, and will be laid as fast as it arrives. The remainder of the work to be done to complete the buildings, side-tracks, etc., is of a character less urgent than the running track, and can be delayed with little detriment to the interests of the Company.

The alleged want of confidence in railroad securities, which compelled the directors to dispose of \$500,000 of the second mortgage bonds at a low price last May, indicated a necessity for a change in their financial plans; and it is now believed that the sum to be realized from the stock hereby created, (say \$447,000) together with the future surplus earnings of the roads (over 10 per cent. per annum in cash dividends) will render further sales of bonds unnecessary for the present, and place the company in a position of independence.

For your information, I subjoin a comparative statement of the earnings of the roads for the first six months of the past and present fiscal year; a statement of the income account to Nov. 1, 1856, and Capital Stock Account.

Very respectfully, your obedient servant,  
W. M. LARBABEE, Secretary.

#### Comparative Statement of the Earnings of the Galena and Chicago Union Railroad for the first six months of the fiscal years 1854 and 1855

|              | 1855.  |                      | 1854.  |                  |                  |
|--------------|--------|----------------------|--------|------------------|------------------|
|              | Miles. | Earnings.            | Miles. | Earnings.        | Increase.        |
| May.....     | 209    | \$214,106.20         | 186    | \$119,395.31     | \$94,710.89      |
| June.....    | 209    | 222,553.89           | 186    | 123,873.57       | 98,680.32        |
| July.....    | 212    | 185,920.52           | 186    | 93,957.70        | 91,962.82        |
| August.....  | 221    | 210,966.23           | 186    | 104,122.07       | 105,844.16       |
| Sept.....    | 225    | 259,646.33           | 186    | 149,770.04       | 109,876.29       |
| October..... | 235    | 128,500.10           | 186    | 184,851.61       | 100,148.19       |
|              |        | <hr/> \$1,317,293.17 |        | <hr/> 775,970.30 | <hr/> 601,322.87 |

\* Approximated † Estimated.

#### STATEMENT OF INCOME ACCOUNT TO NOV. 1, 1855.

|                                                                                         |                      |
|-----------------------------------------------------------------------------------------|----------------------|
| Surplus earnings May 1855.....                                                          | \$315,754.48         |
| Earnings from May 1 to Nov. 1, '55                                                      | 1,377,293.17         |
|                                                                                         | <hr/> \$1,693,047.65 |
| Operating expenses for 6 months* 454,481.07                                             |                      |
| Five per cent. dividend of Aug. 1, 1855.....                                            | 223,360.00           |
| Interest to Nov. 1, on \$1,875,000 bonds (first mortgage).....                          | 98,437.50            |
| Interest to November 1, on \$500,000 bonds (second mortgage).....                       | 17,500.00            |
| Interest to Nov. 1, on \$11,000 bonds (see second division).....                        | 550.00               |
| Interest to Nov. 1, on the Litchfield bonds.....                                        | 11,894.07            |
| Salaries of officers for 6 months.                                                      | 6,025.00             |
| Reserved for renewal of track.                                                          | 150,000.00           |
| Two and a half per cent. of dividend to be paid February 1, 1856, now accrued, say..... | 111,750.00           |
|                                                                                         | <hr/> \$1,073,997.64 |

Probable surplus Nov. 1, 1855... \$619,050.01  
Instead of forcing bonds upon the market, this surplus has been expended for construction purposes.

#### CAPITAL STOCK.

|                                                                                                |                             |
|------------------------------------------------------------------------------------------------|-----------------------------|
| The present capital stock is less than.....                                                    | \$4,470,000                 |
| To which add 10 per cent. now created.....                                                     | 447,000                     |
|                                                                                                | <hr/> Total.....\$4,917,000 |
| The surplus, as above, is a fraction over 12 1/2 per cent. on the Capital Stock, as increased. |                             |

\* September and October estimated.

#### Earnings.

CHICAGO AND BURLINGTON RAILROAD.—The following are the earnings of this line for the months of September and October:

|                                                                          | October.         | September.         | Gain.              |
|--------------------------------------------------------------------------|------------------|--------------------|--------------------|
| Trans. of property....                                                   | \$135,060 64     | \$119,390 79       | \$15,669 85        |
| “ passengers.....                                                        | 70,509 24        | 45,082 70          | 25,726 54          |
| “ U. S. Mail..                                                           | 1,389 29         | 1,389 29           |                    |
|                                                                          | <hr/> Total..... | <hr/> \$307,259 17 | <hr/> \$165,662 78 |
| The proportion of Earnings of each Road forming the line are as follows: |                  |                    |                    |

|                             | Freight.         | Pass'gers.         | Mail.             | Total.             |
|-----------------------------|------------------|--------------------|-------------------|--------------------|
| Galena & Chicago Union..... | \$25,255 88      | \$ 9,637 00        |                   | \$ 34,892 88       |
| Chic., Burton & Quincy...   | 71,447 13        | 29,295 00          | \$517 86          | 101,259 99         |
| Cent. Military Tract.....   | 32,460 68        | 22,745 17          | 571 43            | 55,777 25          |
| Peoria and Oquawka....      | 5,896 95         | 9,132 10           | 300 00            | 15,329 05          |
|                             | <hr/> Total..... | <hr/> \$135,060 64 | <hr/> \$70,609 24 | <hr/> \$1,389 29   |
|                             |                  |                    |                   | <hr/> \$207,259 17 |

GALENA AND CHICAGO UNION RAILROAD.—The following are the Earnings of the Galena and Chicago Union Railroad Company for the month of October, 1854 and 1855:

|                 | 1854.            | 1855.              | Increase.          |
|-----------------|------------------|--------------------|--------------------|
| Freight.....    | \$102,676 05     | \$193,877 74       | \$93,201 64        |
| Passengers..... | 81,004 42        | 119,687 91         | 38,683 49          |
| Mails, etc..... | 1,171 14         | 2,587 60           | 1,416 46           |
|                 | <hr/> Total..... | <hr/> \$184,851 61 | <hr/> \$18,153 25  |
|                 |                  |                    | <hr/> \$133,301 64 |

CHICAGO AND ROCK ISLAND RAILROAD.—Earnings of the Chicago and Rock Island Railroad for the month of October, 1855:

|                     |                    |
|---------------------|--------------------|
| For Passengers..... | \$88,954 50        |
| For Freight.....    | 89,309 04          |
| For Mails.....      | 1,800 00           |
|                     | <hr/> Total.....   |
|                     | <hr/> \$180,063 54 |

COVINGTON AND LEXINGTON RAILROAD.—The Earnings of the Covington and Lexington Railroad for the month of October, 1855, were:

|                    |                   |
|--------------------|-------------------|
| Passengers.....    | \$14,009 98       |
| Freight.....       | 25,085 33         |
|                    | <hr/> Total.....  |
|                    | <hr/> \$39,095 31 |
| September was..... | 36,420 65         |
|                    | <hr/> \$2,674 66  |

August was.....\$26,297 29

Increase over Aug.....\$12,798 02  
We have all confidence that November will be \$5,000 better.

PERU AND INDIANAPOLIS RAILROAD COMPANY.—We are indebted to Mr. Haughey, Secretary of the Peru and Indianapolis Railroad Company, for the following statement of earnings for October, with the corresponding receipts of last year:

| October, 1855.                      |                   |
|-------------------------------------|-------------------|
| Passenger Train.....                | \$10,018 47       |
| Freight.....                        | 4,845 40          |
|                                     | <hr/> Total.....  |
|                                     | <hr/> \$14,863 87 |
| October, 1854.                      |                   |
| Passenger Train.....                | \$8,954 11        |
| Freight.....                        | 4,028 89          |
|                                     | <hr/> Total.....  |
|                                     | <hr/> \$12,983 00 |
| Increase over last year, \$1,880 87 |                   |

MILWAUKEE AND MISSISSIPPI RAILROAD.—The Earnings of this Road for the month of November just past have exceeded all estimates. They amount in the aggregate to \$112,553 88, against \$76,776 04, for the corresponding month last year. The earnings for the past ten months of this year, thus compare with the earnings for the corresponding period last year:

| Month.         | 1854.       | 1855.       |
|----------------|-------------|-------------|
| January.....   | \$28,324 29 | \$32,247 00 |
| February.....  | 26,172 33   | 26,908 58   |
| March.....     | 20,773 98   | 30,455 25   |
| April.....     | 18,318 45   | 33,010 33   |
| May.....       | 41,751 31   | 66,984 16   |
| June.....      | 45,154 90   | 63,128 58   |
| July.....      | 35,555 54   | 47,000 00   |
| August.....    | 32,324 04   | 55,095 80   |
| September..... | 60,153 61   | 87,754 94   |
| October.....   | 76,776 04   | 112,553 88  |

Aggregate for ten months....\$80,321 84 \$557,139 44  
The entire receipts for 1854 were \$454,051 19. For the current year they now bid fair to reach \$675,000—a very handsome showing for a hundred mile road.

#### CENTRAL AND ERIE RAILROADS.

The Returns of the New York and Erie for the Financial year of the Company, which corresponds with the official Railroad year of the State of New York, are now complete, and exhibits the following results:—

#### ERIE RAILROAD TRAFFIC, YEAR ENDING SEPT. 30.

|                | To Sept., 1855.  | To Sept., 1854.   |
|----------------|------------------|-------------------|
| October.....   | \$539,019        | \$539,675         |
| November.....  | 436,793          | 461,266           |
| December.....  | 454,971          | 381,203           |
| January.....   | 427,329          | 337,233           |
| February.....  | 340,752          | 357,629           |
| March.....     | 507,090          | 466,027           |
| April.....     | 506,597          | 521,957           |
| May.....       | 475,123          | 600,651           |
| June.....      | 596,838          | 560,677           |
| July.....      | 375,206          | 407,270           |
| August.....    | 434,145          | 481,826           |
| September..... | 554,507          | 617,563           |
|                | <hr/> Total..... | <hr/> \$5,498,965 |
|                |                  | <hr/> \$5,380,957 |

#### NEW YORK CENTRAL ROAD, YEAR ENDING SEPT. 30.

|                    | To Sept., 1855.  | To Sept., 1854.   |
|--------------------|------------------|-------------------|
| October.....       | \$638,768        | \$558,293         |
| November.....      | 563,696          | 450,476           |
| December.....      | 451,487          | 446,164           |
| January.....       | 421,938          | 355,362           |
| February.....      | 335,126          | 315,313           |
| March.....         | 520,000          | 429,088           |
| April.....         | 647,169          | 501,905           |
| May.....           | 620,000          | 509,887           |
| June.....          | 521,710          | 476,079           |
| July.....          | 466,476          | 425,766           |
| August.....        | 533,896          | 520,075           |
| September.....     | 723,362          | 616,836           |
| Miscellaneous..... | Not reported     | 295,990           |
|                    | <hr/> Total..... | <hr/> \$6,442,824 |
|                    |                  | <hr/> \$5,918,334 |

#### COMPARATIVE DEBT AND STOCK.

|                                | 1854.        | 1855.        |
|--------------------------------|--------------|--------------|
| Central.....                   | \$35,959,145 | \$38,558,145 |
| Erie.....                      | 34,850,004   | 35,225,652   |
| Increased cost of Central..... |              | 2,597,400    |
| Increased cost of Erie.....    |              | 975,658      |



INDIANAPOLIS AND CINCINNATI RAILROAD.—The Receipts of this Road for the month ending October 31, 1855, were:

|                    |             |
|--------------------|-------------|
| Passengers.....    | \$29,895 79 |
| Freight.....       | 16,753 33   |
| Mail.....          | 752 08      |
| Express.....       | 450 00      |
| Total.....         | \$47,851 80 |
| October, 1854..... | 33,946 29   |
| Increase.....      | \$13,904 91 |

## WESTERN NAVIGATION.

### THIRD ANNUAL REPORT OF THE U. STATES STEAMBOAT INSPECTORS.

OFFICE LOCAL BOARD U. S. INSPECTORS AT }  
ST. LOUIS, MO., October 1st, 1855. }

To DAVIS EMBREE, Esq., Supervising Inspector, Fifth District.

SIR:—In conformity with the instructions contained in the proceedings of the Board of Supervising Inspectors, held at Pittsburg, in August, 1853, under the law of Congress, approved August 30th, 1852, for "The better security of the lives of passengers on steamboats," we respectfully make the following annual report of the doings of the Board, from September 30th, 1854, to September 30th, 1855, which is the third annual report of this Board:

|                                                                              |           |
|------------------------------------------------------------------------------|-----------|
| No. of steamboats to which certificates of inspection have been issued.....  | 91        |
| Tonnage of same.....                                                         | 22,953    |
| No. received licences to carry gun powder.....                               | 27        |
| " of passengers carried on steamboats to and from the port of St. Louis..... | 1,045,269 |
| " of boats repaired on marine railway and dry docks, from casualties.....    | 18        |
| " of boats ordered to be repaired on account "wear and tear".....            | 57        |
| " refused certificate of inspection on account of hulls.....                 | 4         |
| " do. do. on account of boilers condemned.....                               | 4         |
| " " sunk and lost.....                                                       | 21        |
| " " raised.....                                                              | 24        |
| " " lost by fire.....                                                        | 3         |
| " of lives lost by boats sinking.....                                        | 3         |
| " " burning.....                                                             | 13        |
| " " injurious escape of steam.....                                           | 7         |
| " " spar breaking while aground.....                                         | 5         |
| " of original licences granted to first class Engineers.....                 | 1         |
| " of original licences granted to second class Engineers.....                | 34        |
| " renewals to first and 2d class Engineers.....                              | 246       |
| " of licences refused to Engineers on account of intemperance.....           | 8         |
| " do. do. on account of incompetency.....                                    | 10        |
| " " under age.....                                                           | 8         |
| " of licences to Engineers, revoked.....                                     | 6         |
| " " suspended.....                                                           | 6         |
| " of original licences granted to Pilots.....                                | 51        |
| " of renewals.....                                                           | 285       |
| " refused on account of incompetency.....                                    | 6         |
| " " under age.....                                                           | 3         |
| " " intemperance.....                                                        | 5         |
| " of revocations.....                                                        | 3         |
| " of suspensions.....                                                        | 9         |
| Pilots fined for non-compliance with rules.....                              | 1         |
| Boilers found defective under Hydrostatic pressure.....                      | 8         |
| Boilers repaired, under inspection.....                                      | 52        |

The few general remarks we have to make in our present report, as the result of our reflections on the operations of the steamboat law in this district, and the action of this Board during the past twelve months, will be presented under separate heads.

#### PILOTS.

The experience of each succeeding year is valuable, and suggests rules which it is found expedient to adopt. We have adopted the following rule in regard to Pilots, and will, in future, be governed by it, viz: Persons receiving license to pilot by daylight on any river, cannot have the grade of service changed unaltered by us, until the license expires. The party having only established a competency to pilot by daylight, and accepted a license to pilot by daylight for a specified term, cannot reasonably expect to change prematurely the order of his service. He must fill out the term of his license.

We have had many applications from pilots who hold licences to pilot in other districts, asking extensions to pilot on rivers above this point. We have not thought it expedient to grant such extensions. There is no legitimate connection between rivers above this place and rivers below, and in other districts; and a pilot, we apprehend, should be all the time employed in order to keep himself skillful and competent in his duties. More especially would this be the case in the lower Mississippi and in the Missouri rivers, where the channel is ever varying. The effect of granting extensions as desired, would be, that in a short time a pilot might have embraced in his license, every tributary of the Ohio and Mississippi rivers, and perhaps not see some of these tributaries once in a year.

#### DISPOSITION OF STEAMBOATMEN.

We are pleased to report a growing disposition on the part of all classes engaged in the western marine to comply not only with the law but with such rules and regulations as this Board have found it expedient to adopt. The uniform courtesy with which we have been treated by owners of boats; the increasing friendliness and readiness of pilots and engineers to conform to needful rules, which sometimes seem hard in their application to special cases; and the very obvious and gratifying change for the better in the character and tone of the engineers and pilots of western steamboats—are all striking and encouraging facts; and are enough to satisfy the public that the spirit of recklessness, that a few years ago seemed to rule our western waters, has passed away, and that a generation of sober, thoughtful and prudent men are fast filling the places of sacred trust of human life and property on western boats. It will be a social joy and a moral advantage, quite as valuable as the commercial gain, when the inland navigation of this country, the most extensive and remarkable in the world, shall be freed from all the terrors with which it has been invested, in consequence of the frightful disasters of the past, and when the safety and personal convenience of steamboat traveling shall resume for the rivers their former ascendancy, and aid in stamping upon the American mind the noble impressions of the fine scenery afforded in such variety and sublimity on American lakes and rivers.

#### THE IMPROVEMENT.

We are able to report, as a satisfactory proof of the triumph of the steamboat law, that within this district no explosion has yet taken place of boilers constructed in conformity to the provisions of the law. Nor do we believe that any such has occurred in the whole country. Collisions have likewise occurred less frequently. The substitution of the steam whistle for the tap of bells, as the signal in passing, has proved to be of material advantage. The number of casualties to human life has, in consequence, very greatly decreased. A comparison of our last year's report with this will exhibit, in this district, changes for the better, in very many respects. For instruction, we append a few items:

#### PASSENGERS CARRIED ON STEAMBOATS.

|                |           |
|----------------|-----------|
| Last year..... | 501,405   |
| This year..... | 1,046,249 |

#### LIVES LOST.

|                              |       |
|------------------------------|-------|
| Last year, by explosion..... | 34    |
| " " fire.....                | 55—89 |
| This year, by explosion..... | none  |
| " " fire.....                | 13    |
| " " sinking.....             | 3     |
| " " other modes.....         | 13—28 |

These comparisons will show that while, this year, there have been carried double as many passengers to and from St. Louis as there were last year, not one-third the number of lives were lost—and none at all by that much dreaded catastrophe—the explosion of a boiler. So extraordinary a fact of improvement cannot fail to make a deep impression on steamboatmen and on the public. They will be apt to ask themselves, if accidents can be so greatly decreased, why may they not be avoided altogether? Let us hope, for the glory of science, for the praise of steamboatmen, and for the sake of humanity, that the ensuing year shall be wholly devoid of accidents among steamboats, resulting from causes that steamboatmen should control.

But if the comparison of last year with the present in respect to accidents to human life is so favorable, the same is not the case in respect to loss of boats. Look at the facts:

|                                           |       |
|-------------------------------------------|-------|
| Steamboats sunk and raised last year..... | 19    |
| " sunk and lost ".....                    | 10—29 |
| Steamboats sunk and raised this year..... | 24    |
| " sunk and lost ".....                    | 21—45 |

This results very illy comports with the favorable comparisons presented above of the improved safety of human life, on the western waters. We have not the means of knowing accurately, but we are led to believe that the total loss of property by the snagging and sinking of boats on the western rivers during the past twelve months, is considerably over two millions of dollars. It is certainly much beyond what it was the year before.

It seems to us that these facts should arrest the attention of Congress. If they can legislate so beneficially for the prevention of the loss of human life, why not devote some thought to the next important duty—the protection of western commerce. The sale of the U. S. snag-boats and the abandonment of the improvement of western rivers by the government, have doubtless contributed to the increased loss of property, that is made apparent. But if it be the settled policy of the Government, to abandon the old mode of clearing snags from western rivers, it is hardly consistent with national wisdom or justice to suppose that no other mode will be adopted.

If not inappropriate, we will suggest to you that private enterprise, under a contract with government, might accomplish, at far less cost than government could, the needful improvement of western rivers. A company that should propose (and we know competent companies that will,) to keep the Mississippi river, from the mouth of the Missouri river to New Orleans, free of all snags, from year's end to year's end, at a given price per year to be paid by government, binding themselves to bring about an annual per cent. of diminution of number of boats snagged, and paying heavy forfeitures for each boat snagged after a given time at the beginning of their operations, it seems to us, should demand the favorable consideration of Congress. The plan proposed would combine simplicity, economy, and efficiency, and would result in the annual saving of millions of wealth to the country. Congress will certainly not permit the serious retrograde movement in the safety of the inland commerce of the nation to continue; and with a confident hope of some salutary change of legislation on the subject, we make these suggestions to you, trusting that they may also reach western members of Congress, who will be able and willing to urge the policy of immediate reform.

JAS. H. McCORD.  
H. SINGLETON.



## Miscellaneous and Mechanical.

## NEW PASSENGER ACT, CA.

The following notice has been issued by the Emigration Commissioners, calling the attention of all persons concerned in the passenger trade to some of the principal points of difference between the expiring and the new "Passengers' Act, 1855," which will come into operation on the 1st of October next:—

1.—The four principal alterations in the new law are:

*First.* To bring a greater number of ships within its operation than at present.

*Second.* To reduce the number of passengers which a ship is allowed to carry.

*Third.* To increase the amount of nutriment in the dietry to be used on the voyage; and,

*Fourthly.* To bring emigrant runners within the control of the law.

2.—The first of these objects is obtained by defining a "passenger ship" to be any vessel which carries more than thirty passengers in all, or more than one to every fifty tons register in sailing vessels, or one to every 25 tons in steamers; the second by lowering the age of a statute adult from fourteen to twelve, and by increasing the superficial space to be allowed to each, from twelve feet (the present allowance in voyages to North America,) to fifteen feet on the "upper passenger deck," including the poop, round or deck house, and on the "lower passenger deck," to eighteen feet, and even to twenty-five feet in case the amount of light and ventilation on that deck (exclusive of side scuttles) is below a given portion. The number of passengers will, in some cases, be further limited by the requirement that each statute adult shall have at least five superficial feet clear for exercise on the upper deck, including the top of any round or deck house, if properly railed. The third object is attained by including in the diet scale rations of meat, peas, and potatoes, and the fourth, by requiring "emigrant runners" to be licensed at the Petty Sessions, to be registered by the Emigration Officers, and to wear badges.

3.—No ship must carry passengers, including cabin passengers, on more than two decks, but the poop or deck house does not count as a deck if occupied by cabin passengers not exceeding the proportion of one to every 100 tons of the ship's registered tonnage.

4.—Only those mail steamers will be exempt from the law which are regularly employed under a contract, and the masters of which will produce to the Emigration Officer a certificate of exemption, signed by the Postmaster General or his deputy, or Colony, or the proper Government Officer of the State to which the vessel belongs.

5.—Cabin passengers proceeding in "passenger ships" must be furnished with Contract Tickets, in the form given in the Act, equally with steerage passengers.

6.—Not more than one passenger, unless husband and wife, or females, or children under twelve years of age is to be placed in each birth; and the crew, when once passed by the Emigration Officer, is not to be diminished or changed, without his consent in writing, or that of the shipping master of the port. Where the consent of the latter officer is obtained, it must be lodged, within twenty-four hours, with the Emigration Officer.

7.—The passengers on board may be divided

into messes not exceeding in size ten statute adult for each; and members of the same family, if containing at least one male adult, are to be allowed to form a separate mess. Besides the three quarts of water daily for each statute adult, there is to be an additional allowance, for cooking purposes, of ten gallons a day for every 100 statute adults.

8.—A medical practitioner must be carried on southern voyages where the number of passengers exceeds fifty, and on any voyage where the number of persons, including cabin passengers, officers, and crew exceeds three hundred.

9.—The subsistence money payable in cases of detention is raised from 1s to 1s 6d a day, per statute adult, for the first ten days, and to 3s. afterwards. But it is not payable for the first two days if the passengers be maintained on board, nor at all, if the passengers are so maintained, and the ship is detained by any cause not attributable, in the opinion of the Emigration Officer, to the act or default of the owner, charterer, or master.

10.—The owners, charterers, or masters of passenger ships are liable to the Crown in double the amount of passage money received by any of them towards the repayment of any expenses which the governors of colonies, or British consuls may have incurred in forwarding to their destination passengers who may have been wrecked or picked up at sea.

11.—Passage brokers must now give bond to the Crown for £1,000 instead of £500; but on the other hand, their agents (who must be appointed in writing in the form given in the Act,) need not be licensed or give bond. They must, on or before the fifth day of each month, transmit to the nearest Emigration Officer a true list of their agents, or emigrant runners, and must report to him, within twenty-four hours, every discharge or fresh engagement of such persons.

12.—Masters of ships bringing passengers into the United Kingdom from any place out of Europe are reminded that they must within twenty-four hours after arrival, deliver to the Emigration Officer, or, in his absence, to the Chief Officer of Customs, a correct list of his passengers, and of any casualties on the voyage.

## BANKS OF THE UNITED STATES.

The following table shows the condition of the banks of the United States, according to the returns nearest the 1st of January, 1837 and 1855, received by the Secretary of the Treasury:

|                                                              | 1837.         | 1855.         |
|--------------------------------------------------------------|---------------|---------------|
| Banks.....                                                   | 788           | 1,300         |
| Capital.....                                                 | \$290,772,091 | \$332,177,288 |
| RESOURCES.                                                   |               |               |
| Loans and discounts.....                                     | \$525,115,702 | \$576,144,758 |
| Stocks.....                                                  | 12,407,112    | 52,727,082    |
| Real estate.....                                             | 19,064,451    | 24,073,801    |
| Other investments.....                                       | 10,423,630    | 8,734,540     |
| Due by other banks.....                                      | 59,663,910    | 55,728,735    |
| Notes of other banks.....                                    | 36,533,527    | 23,429,518    |
| Specie fund.....                                             | 5,766,500     | 21,935,738    |
| Specie.....                                                  | 37,915,340    | 53,944,545    |
| LIABILITIES.                                                 |               |               |
| Circulation.....                                             | \$149,185,800 | \$186,952,223 |
| Deposits.....                                                | 127,497,185   | 190,460,342   |
| Due to other banks.....                                      | 62,421,118    | 45,156,697    |
| Other liabilities.....                                       | 36,560,289    | 15,599,623    |
| Aggregate immediate liabilities.....                         | 380,004,193   | 422,509,262   |
| Aggregate immediate means.....                               | 139,479,277   | 155,048,537   |
| Specie in depositories.....                                  |               | 27,188,889    |
| Total specie in banks and treasury depositories.....         |               | 81,133,435    |
| The specie of the banks, from 1843 to 1855, has ranged thus: |               |               |
| 1843.....                                                    |               | \$33,516,806  |
| 1848.....                                                    |               | 46,369,765    |
| 1851.....                                                    |               | 48,671,048    |
| 1854.....                                                    |               | 59,410,253    |
| 1855.....                                                    |               | 53,944,545    |

## OFFICIAL STATEMENT OF THE FEDERAL FINANCES.

The following statement of the Register of the Treasury will show the receipts and expenditures of the United States for the quarter ending September 30, 1855, exclusive of trust funds:

| RECEIPTS.                                                                                                                       |                 |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------|
| From customs.....                                                                                                               | \$17,085,238.28 |
| Do. sales of public lands.....                                                                                                  | 2,335,725.87    |
| Do. miscellaneous sources.....                                                                                                  | 333,495.98      |
|                                                                                                                                 | \$19,774,460.13 |
| EXPENDITURES.                                                                                                                   |                 |
| Civil, miscellaneous and foreign intercourse.....                                                                               | \$5,116,830.25  |
| Interior—Pensions.....                                                                                                          | \$624,548.64    |
| Indian Department.....                                                                                                          | 1,275,003.55    |
|                                                                                                                                 | 1,799,642.19    |
| War—Army proper, etc.....                                                                                                       | 3,569,302.76    |
| Fortifications, etc.....                                                                                                        | 700,934.49      |
| Miscellaneous.....                                                                                                              | 471,784.18      |
|                                                                                                                                 | 5,142,111.33    |
| Navy.....                                                                                                                       | 4,282,292.67    |
| Redemption on Stock loan of 1842.....                                                                                           | \$72,000.00     |
| Redemption on Stock loan of 1846.....                                                                                           | 197,300.00      |
| Redemption on Stock loan of 1847.....                                                                                           | 11,600.00       |
| Redemption on Stock loan of 1848.....                                                                                           | 22,300.00       |
| Redemption of debt contracted by Washington, Georgetown and Alexandria.....                                                     | 2,400.00        |
| Premium on stock redeemed.....                                                                                                  | 20,821.75       |
|                                                                                                                                 | \$237,321.75    |
| Deduct excess of repayment on account of interest on the public debt, being amount re-founded for advances on that account..... | 5,112.04        |
|                                                                                                                                 | 252,209.71      |
|                                                                                                                                 | \$16,594,116.10 |

IMMIGRATION.—The great diminution taking place in the foreign emigration to this country, is made apparent by the following table:

|                | 1853.   | 1854.   | 1855.   |
|----------------|---------|---------|---------|
| January.....   | 4,901   | 15,514  | 7,485   |
| February.....  | 11,958  | 4,446   | 6,123   |
| March.....     | 9,685   | 3,758   | 2,069   |
| April.....     | 23,283  | 31,148  | 10,195  |
| May.....       | 30,212  | 54,078  | 24,177  |
| June.....      | 45,578  | 25,907  | 19,427  |
| July.....      | 22,898  | 35,247  | 15,716  |
| August.....    | 33,632  | 39,416  | 9,180   |
| September..... | 30,288  | 22,759  | 11,708  |
| October.....   | 23,901  | 28,378  | 13,342  |
| November.....  | 31,485  | 20,276  | .....   |
| December.....  | 17,814  | 25,396  | .....   |
| Total.....     | 284,045 | 319,223 | 119,420 |

The proportion of Irish and Germans is shown by the following:

|                 |         |         |        |
|-----------------|---------|---------|--------|
| Germans.....    | 119,644 | 176,986 | 46,288 |
| Irish.....      | 113,164 | 82,302  | 37,611 |
| Less Irish..... | 6,480   | 94,684  | 8,677  |

[Journal Commerce.]

CLEVELAND AND MAHONING RAILROAD.—This important work progresses steadily. The track is now laid from this town to Mantua, a distance of about twenty miles. When the track is laid to section No. — in Mantua, it is the intention of Messrs. Baily & Co., (who have the contract for this part of the work,) to draw off their force from this end of the line, and commence laying the iron at Cleveland. This will be done, on account of the grading being unfinished; on two sections of heavy work.

The road will probably be finished from Cleveland to this place, about the first of January, and Youngstown early in the next season; and to the Pennsylvania line, before its close. A part of the iron for the iron bridge, over the Mahoning at this town, has arrived, and the bridge will be erected in a very short time.—Warren Chron.

HENDERSON AND NASHVILLE RAILROAD.—The contracts on this road from Henderson to a point near Madisonville, have been let to Joel Lambert, Esq., and Messrs. Huston, Landrigan & Co.



## STOCK TABLE.

CORRECTED WEEKLY.

GOVERNMENT SECURITIES.

|                                                              | INT. | DCE.    | OFF'D. | ASK'D  |
|--------------------------------------------------------------|------|---------|--------|--------|
| U. S. Loan.....                                              | 1    | 1866    | 103½   | 105    |
| Do .....                                                     | 6    | 1862    | 112    | 113    |
| Do .....                                                     | 6    | 1867    | 117½   | 120    |
| Do .....                                                     | 6    | 1868    | 118    | 120    |
| Do (Int. ceased July 1) 5                                    |      | 1853    |        | 102    |
| Do Coupons.....                                              |      | 1862    |        | 118    |
| Do .....                                                     | 6    | 1867    |        | 118    |
| Do .....                                                     |      | 1853    |        | 101    |
| STATE.                                                       |      |         |        |        |
| Alabama.....                                                 | 5    |         |        |        |
| California.....                                              | 7    | 1870    | 86     | 88     |
| Arkansas.....                                                | 6    |         |        | 96     |
| Georgia.....                                                 | 6    |         | 98     | 99     |
| Do .....                                                     | 7    |         |        |        |
| Illinois Canal Bonds.....                                    |      | 1860    |        |        |
| Do do registered.....                                        |      | 1860    |        |        |
| Do do .....                                                  |      | 1847    |        |        |
| Do do registered.....                                        |      | 1847    |        |        |
| Do do Internal Impt. 6                                       |      | 1847    | 102½   | 104    |
| Do Interest do.....                                          |      |         | 72     | 75     |
| Indiana.....                                                 | 5    |         | 79½    | 81     |
| Do .....                                                     | 2½   |         | 54     | 55     |
| Do Canal Loan.....                                           |      |         |        |        |
| Do do preferred.....                                         | 5    |         |        |        |
| Do special preferred.....                                    | 5    |         |        |        |
| Kentucky, 30 years.....                                      | 6    | 1871    | 101    |        |
| Do 16 years.....                                             | 6    |         | 102    |        |
| Do large bonds.....                                          | 6    | 1869-72 | 100½   |        |
| Do .....                                                     | 5    |         |        |        |
| Louisiana.....                                               | 6    |         | 89     | 91     |
| Michigan.....                                                | 6    |         | 97     | 98     |
| Missouri.....                                                | 6    |         | 86     | 90     |
| New York.....                                                | 6    | 1873    | 116½   | 117    |
| North Carolina.....                                          | 6    |         | 89     | 100    |
| Ohio.....                                                    | 6    | 1856    | 102    |        |
| Do .....                                                     | 6    | 1860    | 105½   | 106    |
| Do .....                                                     | 6    | 1870    | 118    | 119    |
| Do .....                                                     | 6    | 1875    | 118    | 119    |
| Do .....                                                     | 5    | 1855    |        |        |
| Pennsylvania.....                                            | 6    |         |        |        |
| Do .....                                                     | 5    | 1870    |        | 89     |
| Tennessee, long loan.....                                    | 6    | 1890    | 93     | 97     |
| Do Coupons.....                                              | 5    |         | 81     | 83     |
| Virginia Coupons.....                                        | 6    | 1886    | 94     | 97     |
| CITY SECURITIES.                                             |      |         |        |        |
| Albany.....                                                  | 6    | 1871-81 |        | 99½    |
| Allegheny.....                                               | 6    | 1875-7  |        | 80     |
| Baltimore.....                                               | 6    | 1870-90 | 99½    | 100½   |
| Do .....                                                     | 5    | 1865    |        |        |
| Boston Bonds.....                                            | 4½   | 1860    |        |        |
| Chicago.....                                                 | 6    | 1873-7  | 92½    | 95     |
| Cleveland.....                                               | 6    | 1879    | 103½   | 105    |
| Cincinnati.....                                              | 6    | 1860-92 | 96     | 96½    |
| Do .....                                                     | 6    | 1897    |        |        |
| Do .....                                                     | 5    | 1884    |        |        |
| Do W. W.....                                                 | 6    | 1865    |        |        |
| Covington.....                                               | 6    | 1857    | 80     | 80     |
| Jeffersonville.....                                          | 6    | 1890    | 70     |        |
| Louisville.....                                              | 6    | 1880    | 86½    | 87     |
| Memphis.....                                                 | 6    | 1882    |        | 72½    |
| New York.....                                                | 7    | 1857    | 100½   |        |
| Do .....                                                     | 5    | 1858-00 | 95     | 99     |
| Do .....                                                     | 5    | 1870-5  | 97     | 100    |
| Do .....                                                     | 5    | 1890    |        |        |
| Philadelphia.....                                            | 6    | 1876-90 | 94½    | 95     |
| Pittsburgh.....                                              | 6    | 1869-78 | 81     | 82     |
| Do coupons.....                                              | 6    | 1883    |        |        |
| Racine.....                                                  | 7    | 1873    | 85     | 86     |
| St. Louis.....                                               | 6    | 1870    | 85     | 86     |
| Wheeling.....                                                | 6    | 1873    | 70     | 73     |
| COUNTY BONDS.                                                |      |         |        |        |
| Bourbon, Ky.....                                             | 6    | 1881    | 77½    | 80     |
| Darke, O.....                                                | 7    |         |        |        |
| Fairfield, O.....                                            | 7    | 1862    |        |        |
| Fayette, Ky.....                                             | 6    | 1881-3  | 75     | 75     |
| Hancock Co.....                                              | 7    |         | 70     | 75     |
| Mason, Ky.....                                               | 6    | 1881    | 73     | 76     |
| McCraken Co., Ky., endorsed by<br>New Orleans and Ohio R. R. |      |         |        |        |
| St. Louis.....                                               | 6    | 1866    | 80     | 85     |
| Do .....                                                     | 7    | 1871    |        |        |
| BANKS.                                                       |      |         |        |        |
| OHIO.                                                        |      |         |        |        |
| American Exchange Bank, N. Y.....                            |      |         | 118    |        |
| Ohio Life Insurance and Trust Co.....                        |      |         | 98     | 100    |
| Washington Insurance Co.....                                 |      |         | 84     | 85     |
| City Insurance.....                                          |      |         | 70     |        |
| Cincinnati Insurance Co.....                                 |      |         | 84     |        |
| National Insurance.....                                      |      |         | 75     | 80     |
| KENTUCKY.                                                    |      |         |        |        |
| Bank of Kentucky and Branches.....                           |      |         |        |        |
| Northern, and Branches.....                                  |      |         |        | 100    |
| Southern, and Branches.....                                  |      |         |        |        |
| Bank of Louisville.....                                      |      |         |        | 93     |
| Kentucky Trust Co.....                                       |      |         |        |        |
| Farmers' Bank of Kentucky.....                               |      |         | 105½   | 106    |
| Commercial Bank of Kentucky.....                             |      |         |        |        |
| INDIANA.                                                     |      |         |        |        |
| State Bank and Branches.....                                 |      |         |        |        |
| TENNESSEE.                                                   |      |         |        |        |
| State Bank and Branches.....                                 |      |         |        |        |
| Union.....                                                   |      |         |        |        |
| Planters.....                                                |      |         |        |        |
| LAND WARRANTS.                                               |      |         |        |        |
|                                                              |      |         | Buy'g  | Sell'g |
| 160 acre warrants, per acre.....                             |      |         | \$1 10 |        |
| 80 acre warrants.....                                        |      |         |        |        |
| 40 acre warrants.....                                        |      |         |        |        |







## PRAIRIE DU CHIEN AND LA CROSSE R. R.

We learn by the La Crosse *Republican* that the Prairie du Chien and La Crosse Railroad was organized in that village on the 15th inst. The following are the names of the Board of Directors for the ensuing year:

Thomas B. Stoddard, Cyrus K. Lord, Nelson Dewey, H. L. Doumal, B. W. Reynolds, John M. Levy, F. M. Rublee, C. A. Stevens, W. E. Potter, E. D. Campbell, S. D. Hastings, Benj. Pringle, Wm. Bross, Charles Warner, James Fisher.

At a meeting of the Directors on the following day, the officers of the Company were chosen, as follows:

Thomas B. Stoddard, President; Cyrus K. Lord, Vice-President and General Stock Agent; John M. Levy, Treasurer, Samuel D. Hastings, Secretary; E. B. Pike, Chief Engineer; C. A. Stevens, Superintendent; T. B. Stoddard, S. D. Hastings, B. W. Reynolds, E. D. Campbell, W. E. Potter, Executive Committee.

The Illinois Central Company have control of the route from Prairie du Chien to Dunleith, and contemplate putting it in a condition to be built at an early day. It is believed that there will be an abundance of business for the whole line as soon as it is completed.

## CINCINNATI, LOGANSPOUT AND CHICAGO RAILROAD.

The prospect of a direct railroad connection with Chicago within twelve months is such as to place the success of the enterprise beyond doubt. The road from Cincinnati to this place will be in operation long before that time, and the extension of the road northward to the "City of the Lakes" will open a thoroughfare of great importance to Indiana and the cities at either termination.

A contract has been made with a number of capitalists east, in connection with Judge Wright of this city, to complete the road from this place to the crossing of the Fort Wayne and Chicago road, by the 1st day of September next.

Engineers are now locating the road, and the entire line will be sub-let in small contracts by the middle of November, so as to insure its completion at the earliest date.

Mr. Smith recently purchased a truss bridge, ready for putting up. It was framed in Canada for the Maysville and Lexington Railroad, and disposed of at public sale. It has been shipped for this place, and is intended to be placed over the Wabash.

The work from the south bank of the Wabash to the Depot ground on Broadway, near the Seminary, including the erection of bridges, will be let immediately.—*Dem. Pharos*, Oct. 31.

## MESSAGE OF THE GOVERNOR OF TENNESSEE.

—From the annual message of Governor Johnson to the Legislature now in session, we learn that the indebtedness of the State amounts to \$3,992,856, in addition to its liability for bonds loaned and endorsed to the amount of \$4,752,000; making the whole liabilities amount to \$8,744,856. The estimated present value of the stocks held by the State is \$2,540,827; the turnpike companies paying 6 per cent. on their stock. The State owns \$1,650,010 in the stock of the bank of Tennessee and the Union Bank, and in the East Tennessee and Georgia Railroad \$3,000,000. This exhibits a safe financial condition of the State.

The Governor recommends that the affairs of the Bank of Tennessee be wound up, and that the stock of the State in the Union and Planters' Bank be disposed of, and all other State Stocks and the proceeds invested in the 6 per cent. bonds of the State. He suggests some amendments to the free banking system and the prohibition of all notes under \$5.

## To Railroad Contractors.

SEALED proposals will be received at the office of the Edgfield and Kentucky Railroad Co. in Nashville, Tenn., until Saturday, Dec. 15th, 1855, for the construction of their Road, from Nashville to the Kentucky Line where it meets the Henderson & Nashville Railroad to Henderson on the Ohio River. The E. & K. Railroad is about forty-eight miles long, through a country well adapted to railroad construction, and the work will be divided into sections of about one mile each, which may be bid for separately or the whole road included in one proposition. Proposals may also be made to build the thirty miles only next to Nashville, either by single section or in one contract.

There are on the road, one tunnel half a mile long, heavy rock work at various points, and two large bridges. Maps, profiles and plans will be ready for examination by Dec. 1st, and any information may be obtained by addressing the undersigned.

SAM'L WATSON, President.

A. ANDERSON, Chief Engineer.

Nashville, Tenn., Oct. 20, 1855.

Nov 1.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

## New Railroad Map.

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq. of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

Plain Lithograph,.....\$0.50

Colored Boundaries,.....0.75

Backed with muslin and varnished ready

for moulding,.....1.50

Mounted,.....2.00

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Recrd.

The usual discount made to dealers. Railroad Companies wishing a large number to circulate with reports, or to supply their various offices, will be allowed a corresponding discount.

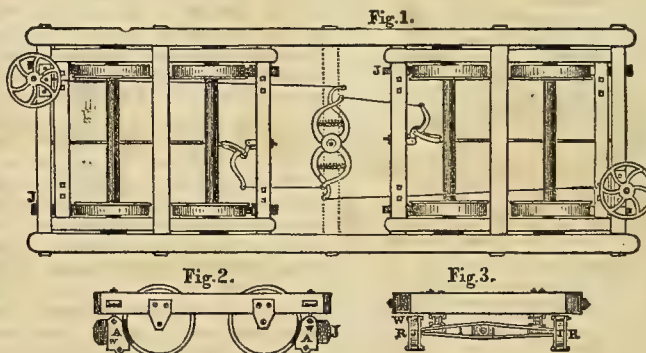
Orders addressed to

T. WRIGHTSON & CO.,

Publishers R. R. Record,  
167 Walnut St.,  
Cincinnati, Ohio.

L. PAIGE'S  
IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviating all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

We, the undersigned, hereby certify that we have seen the operation of a Railroad Car Brake, now in use on the Rutland and Burlington Railroad, invented by Mr. Lucius Paige, of Cavendish, in the State of Vermont, and are satisfied that it is the cheapest (taking into account repairs, &c.) and the best thing of the kind now in use.

JOHN S. DUNLAP, Supt. R. & B. R. R.

M. G. LITCHFIELD, Master Mechanic R. & B. R. R.

JOSIAH BOWTELL, Conductor R. & B. R. R.

A. W. WHITCOMB, Conductor R. & B. R. R.

SILAS L. PIERCE, Engineer R. & B. R. R.

E. WHITCOMB, Conductor R. & B. R. R.

P. R. DOWNER, Conductor R. & B. R. R.

J. F. STINSON, Road Master R. & B. R. R.

DANIEL ARMS, Conductor R. & B. R. R.

We, the undersigned, hereby certify that the Car Brake illustrated upon the preceding page, is now in use on the Lowell Railroad, and having made a satisfactory trial thereof, most fully accord to it a great superiority over any other Brake in use, embodying especially the advantages above set forth, and recommend it as being in all respects superior to any other.

June 15, 1855.

C. B. KING, Master of Machinery.

ENOCH HALE, Car Builder.

JARVIS CUSHING, Car Builder.

E. D. COLEY, Car Builder.

B. F. BAILEY, Car Builder.

WILLIAM SNELL, Car Builder.

EDWARD FOWLE, Car Builder.

WM. H. PETTINGELL, Depot Master.

DAVID R. KIRBY, Conductor.

P. A. PEARSON, Machinist.

The names above signed are those of practical men in our machinery department. Mr. King being widely known for his skill and good judgement, and any addition from me appears to be superfluous—but at the request of the patentee or inventor, I can and do cheerfully say, that the mechanical features of his plan are such as make the Brake superior to most, and second to none with which I am acquainted.

Nov. 1.

WM. PARKER, Agent B. & L. R. R. Co.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

Manufacturing Establishments,  
*Railroad Depots and Station Houses,*

at current rates. **L. A. OSTROM,**  
ug. 16. No. 6 West Third Street, Cincinnati.

**RAILROAD IRON.**

The undersigned are prepared to contract for the freightage of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY.** Quebec & Kingston, Canada. **BERRY & WALKER.** Liverpool, England. Kingston, C. W., Sept. 15, 1855.



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,

North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
**CINCINNATI.**

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

*Bank Notes, Drafts, Bills of Exchange,*  
**RAILROAD BONDS, & CERTIFICATES**  
Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE**  
**ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence  
with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**  
**BILLS OF EXCHANGE, CHECKS,**  
Drafts, Certificates of Stock and Deposit, Promissory  
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Professional Cards, Notarial, County  
and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order  
of a superior quality.

The above office is under the supervision of  
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**LITHOGRAPHERS & ENGRAVERS,**

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**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
Beautifully executed and at moderate rates.

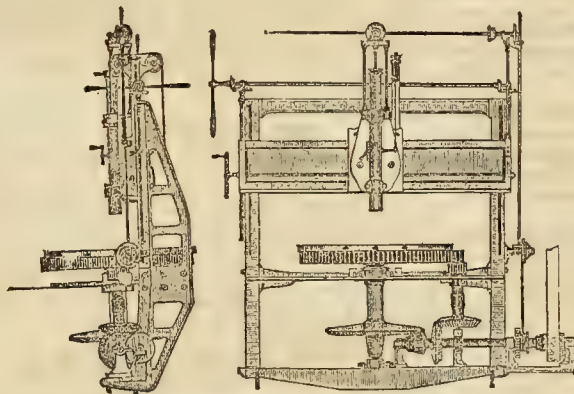
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**NILES' WORKS.**

**FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS.**

**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well  
known class of

**ENGINEERS' & MACHINISTS' TOOLS,**  
**SHAFTING, GEARING,**

**PULLEYS, COUPLINGS,**

**BANCROFT'S PATENT SELF-ADJUSTING**  
**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad  
and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Facto-  
ries, etc., etc.

**London Agency for Sale of Bonds &c.**

Messrs LANCE & Co., are making more generally  
known in England, the great advantages of American  
securities for investment.

During the present year Messrs LANCE and Co. have  
disposed of a large amount of American and Canadian  
Railway Bonds, and are fast extending their connec-  
tions. They will be happy to correspond with parties  
having good American Securities for sale.

Messrs LANCE & Co. have had experience in the pur-  
chase and shipment of Iron, and offer their cooperation  
to those about to negotiate for the disposal of Bonds  
and the purchase of Rails.

P. S. Presidents of Railway Companies are requested  
to favor Messrs L. & Co. with Exhibits or Reports of  
their Companies as published.

10, Regent street, Waterloo Place, London,  
October, 1855. nov, 15-6m.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY.

**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines,  
28 tons weight; 10 wheels, 6 drivers and truck  
Two of the Engines now ready for delivery, and four  
in the course of three months. Our Coal Burners are  
used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage)  
Pennsylvania Central; Manassas Gap & Orange & Al-  
exandria, Georges Creek Co.'s road, Central Ohio, and  
Ohio & Penna.; and for their durability and economy  
of repairs, and economy of fuel, we refer to the officers  
of the above roads.

Orders for freight or passenger engines deliverable on  
or after the first of December, solicited.

Address, **THATCHER PERKINS,**

**President.**

Also, for sale, two Twenty Horse Power Stationary  
Engines.  
Aug. 9th

**THE SCHENCK**

**MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**

No. 163 GREENWICH STREET,  
**NEW-YORK,**

**KEEPS** constantly for sale, Tools suitable for Rail-  
road Repair Shops, and having connection with  
some of the largest Establishments at the East, is pre-  
pared to furnish Tools of any description. Also the  
principal Manufacturer of the justly celebrated Wood-  
worth's Patent Planing Machines in forty different va-  
rieties. Slide and Hand Lathes, Iron Planing Machines,  
Sash and Tenoning Machines, Mortising Machines, Up-  
right Drills, Chucks, Steam Engines, and Boilers, Pumps  
of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented  
and copper riveted. Warranted superior to any made.  
Orders respectfully solicited.

A. L. AUKERMAN, PROPRIETOR

Aug. 9 ly

**D. D. MILLER,**

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WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

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**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.  
Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

**Sole Manufacturers of McGowan's Double Action SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; we have adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-ly

**IRON BOILER FLUES.****PASCAL IRON WORKS.****MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1 1/4 to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From 1/2 to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Freight Ag't.  
Indianapolis, October 1, 1855.

**THE KENTUCKY MILITARY INSTITUTE.**

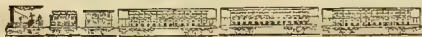
DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,  
President of the Board.

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

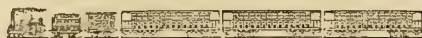
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1853. Sept. 29-ly.

**Terre Haute & Richmond R. R.****Summer Arrangement.**

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 2 1/2 hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

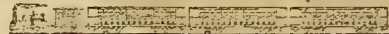
TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde, Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

THE OMNIBUS LINE will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,  
St. Louis, Chicago, Galena & Rock Island,  
BY THE WAY OF THE  
CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.**

TO CHICAGO, in..... 15 HOURS.

TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

feb. 8-ly D M MORROW, Superintendent



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

## FOR PASSENGERS BY THIS ROUTE,

Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.

## FOR FREIGHTS IN EITHER DIRECTION

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

## Philadelphia and New York Railroads.

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York.

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

W. M. G. HARRISON, President, JOHN H. DONE, Mast. of Transportation, Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

FREIGHT—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.

Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

## STEREOTYPE FOUNDRY,

AND AGENCY OF

L. JOHNSON &amp; CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES),  
is prepared to execute in the best manner all kinds of  
STEREOTYPING,

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

## AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,

168 1-2 Vine Street, Cincinnati, O.

## 1855. New Arrangement, 1855

## COMMENCING MONDAY, JULY 16.

LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAID WITH HEAVY TIRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy Tiron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.  
CLEVELAND TO CINCINNATI in 8½ hours.

## Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¾ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30¾ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Philadelphia in..... | 14 "      |
| To Philadelphia in..... | 30¾ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

FOURTH TRAIN—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## Covington and Lexington Railroad.

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terrehaute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at Lexington at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryantsville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.20 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

FREIGHT TRAINS will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

## RATES OF FARE.

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthiana.....  | 2 00   |

## FOR THROUGH TICKETS

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent.

The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw. Madison and Scott, Covington.

## CLAYTON &amp; GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road. nov.15\*

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

## VIA LAWRENCEBURG.

In connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.  
SIDNEY RICE,  
Cincinnati, Nov. 1, 1855. Agent.

W. G. ATKINSON,  
Civil Engineer, Surveyor & Draftsman,  
CUMBERLAND, MD.

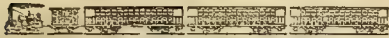
RAILROAD routes located, planned, and estimated, Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared. mar-1y



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

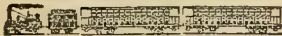
They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
OLMSTED, TENNIS & PECK,  
Louisville, Ky.

Je. 8-1f

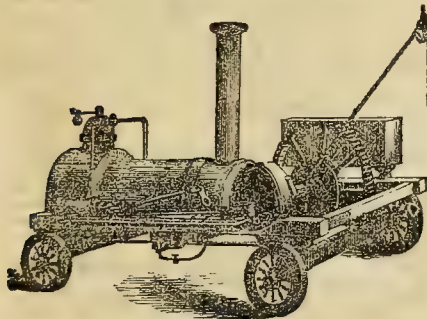
**Norris' Locomotive Works,**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
RICHARD NORRIS & SON.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug 2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

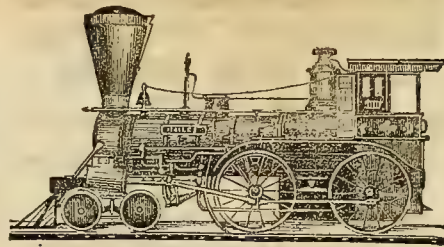
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the MERCURIAL GAUGE, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DERAND, FULTON and TILTON.

Manufactured by J. M. BROWN.  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHEKBURNE,

PRINCIPAL AGENT,

May 1846\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.**

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

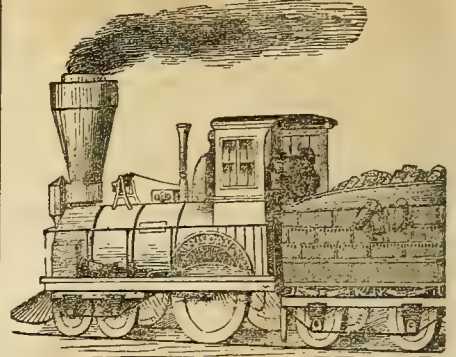
CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. jyt3.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

MOORE & RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. & F. Wason, Springfield, Massachusetts.

**Railroad Car Findings!**

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Casting Fil**

**Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers.

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.

toc6

**CAR MANUFACTORY,**

Dayton, Ohio.



E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

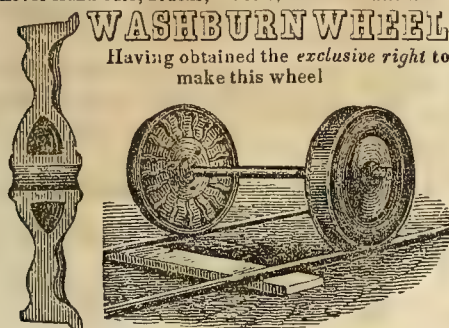
They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan. 25-4



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16<sup>th</sup> JOSEPH DAVENPORT.

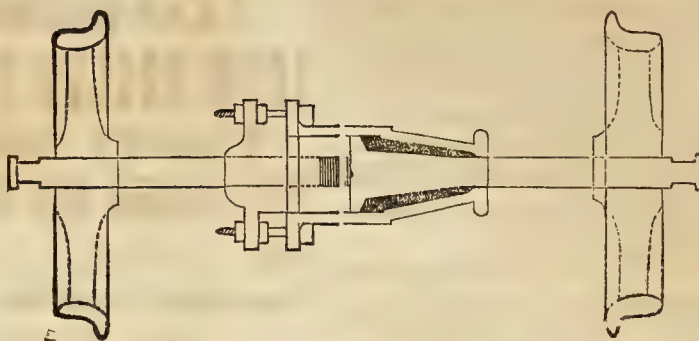
### S. C. THOMSON & CO.,

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## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

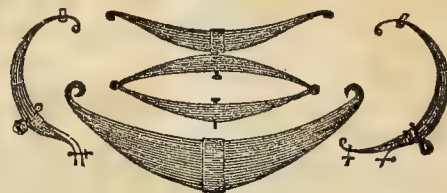
by 10<sup>th</sup>

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

## M<sup>C</sup>DANIEL & HORNER,

LOCO- AND CAR  
MOTIVE SPRING



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

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### References.

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U. WELLS, R. R. Car Manuf. Petersburg, Va.

I. R. TRIMBLE, Supt. Philad. R. R. Co.

May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.

EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.

THOMAS DOUGHERTY, Master Mach. do.

THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.

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PATENT

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WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

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### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,

Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "

Charles H. Fisher, Esq., "

Jno. Caldwell, Esq., Pres't S. C. R. R. Co. Charleston, S. C.

Pinckney Huger, Esq., Pres't N. E. R. R. Co. "

Oct. 13-1<sup>st</sup>.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to  
JOHN RICE & CO., Patentees,  
90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.  
OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation  
WILLIAM B. FOSTER, JR.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,  
H. J. LOMBAERT, Superintendent.  
ENGINEER DEPARTMENT, NORTH P. A. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.  
EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,  
Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,  
STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES,

For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES,

For Railway Wheels. Railway Axles and Springs,  
SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

## FRIED. KRUPP,

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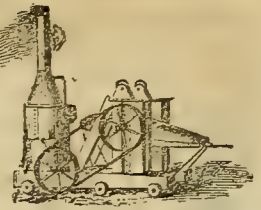
## THOMAS PROSSER & SON,

28

PLATT STREET, New York.

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations, of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

## Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,  
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

## General Map Establishment, No. 3 College Hall, Walnut St., Cincinnati

## E. MENDENHALL, MAP, BOOK & PRINT SELLER,

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Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
MAPS OF EVERY DESCRIPTION.



# Railroad Record.

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W. WRIGHTSON, } Associate Editors.  
T. WRIGHTSON, }

CINCINNATI:

THURSDAY MORNING, ..... NOVEMBER 22, 1855.

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and Colonial Newspaper Advertisement Office.

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London, England.

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THE MINING MAGAZINE.—We would invite the favorable attention of our readers, to the advertisement of this useful journal in the advertising columns. With the November number, the publisher begins the re-publication of a valuable English work on Iron Manufacture, Copiously illustrated with plates. In the December number, will be begun the re-publication of a French work, on Coal Mining.—These two re-publications alone, are worth double the price of the Magazine.

VOL. III.—No 39.

### A TRIP OVER THE CINCINNATI AND MARIETTA RAILROAD TO THE IRON AND COAL MINES OF RACCOON CREEK.

Last week, having some business in the Valley of the Scioto, we passed over the Marietta & Cincinnati Railroad to the extreme end of the *finished part of that work*, in the town of Hamden, Vinton County. We stopt not till we reached the track-layers. Nor did we stop there; but, like Young Lochinvar, stayed not for "break or for stone," till we reached the banks of famed Raccoon Creek.

"—— Oh! what a name!

To fill the speaking trump of Future Fame!"

But, it *will* have fame. The Queen City is famous; but, there runs the little Deer Creek, which only fifty years since, was overshadowed by pawpaw bushes, and inhabited by tadpoles. Give Young America time, and he will build cities even on Raccoon Creek.

We left the Queen City, in that most comfortable of human conveyances, (the Express Train of the Little Miami Railway,) while the dark shadows of night were yet hovering over the slumbering earth, here and there the lurid fires of the forge and foundry shot up their fiery sparks into the air. All around rested clouds and shadows. In a little while, Aurora, who, according to Homer, is the

"—— fair daughter of the dawn,

Sprinkling with rosy light the dewy lawn."

diffused her smiles upon the clouds, and red, and purple, and orange were painted on the heavens.

At ten o'clock (only four hours,) we arrived at the Ancient Metropolis, which, in spite of the despondent tone of some of its citizens, is much more lively, bright, and business-like than it was last year. Among other improvements we saw, was a fine new Court House, which promises to do much credit to the County Commissioners, under whose supervision it has been erected. The fire which occurred there years since, was, undoubtedly, a great drawback on the financial resources of Chillicothe; but, it has its counteracting benefits. The old buildings have been replaced by better ones. The time is near, when the profits of the place will go into new enterprizes, and the opening of the mineral region will cause new trade and the erection of factories.

By the courtesy of the President of the Marietta and Cincinnati Railroad, our party had a special train from Chillicothe to Hamden, Vinton County, the last point to which cars can run. Ours was the *first passenger* car which entered Hamden, on this road. We found the track-layers just in advance, laying the iron at the rate of half a mile per day. The town of HAMDEN is in the extreme southern edge of Vinton County, and is the point at which the Scioto & Hocking Valley Railroad connects with this road. The connection is now made — the Scioto and Hock-

ing having finished their road to the same point. Next week the cars are to run, we are informed, from Cincinnati to Portsmouth, *via*. Chillicothe, Hamden, and Jackson. This will probably not be a *through* route, except when the river is obstructed by ice, or at the lowest stage. Then, however, it will be a very convenient way of reaching the country East of the Scioto, from Cincinnati. The distances on this route will be as follows:

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| Cincinnati to Loveland..23 miles, Little Miami R. R. |                       |
| Loveland to Chillicothe..73 "                        | Marietta & Cin. R. R. |
| Chillicothe to Hamden...31 "                         | " " "                 |
| Hamden, <i>via</i> . Jackson to                      |                       |
| Portsmouth.....48 "                                  | Scioto & Hock. R. R.  |
| Cin. to Portsmouth.....175 "                         |                       |

This is sixty miles further than the river route; but will probably take less time, and in time of ice and low water, will be a necessity.

The *Scioto & Hocking* is graded to "McArthur," the county seat of Vinton County, and seven miles north-east of Hamden.

At Hamden we found horses and carriages, and proceeded with our friends over twelve miles of *road* (!) along side, or on the railway track, which may be cited as a first rate example of the *pioneer ways*. Down here and up there, in mud holes and on hill tops, tumbling here and rolling there. It was a practical and unanswerable *demonstration*, that the railroad was necessary. No wonder lands are three dollars an acre in such a country. If nature were to cover the whole land with wheat and corn, how is it to be got off, without a railroad? How? The truth is, in such a country, a railroad is the *creation* of untold wealth; and if every acre of land was taxed fifty per cent. to make a railroad, the expenditure would be repaid four fold.

In regard to the construction of the Marietta and Cincinnati Railroad to Hamden, and the track thirteen miles further, we can say, positively, that there is no better road bed, in the same character of country, in the United States. The road has been made at great cost; but it has been made *thoroughly*. It has not run *round* the hills, nor made its bridges and embankments flimsily, as we see often done in recent roads. In one word, the road is a good one, and from what we saw of the unfinished work beyond Hamden, we judge it will get through to Athens, on the Hocking, in two months.

At *twenty-five miles* beyond Chillicothe, begins the first development of the Mineral region. At that point is the "*Cincinnati Furnace*," a new furnace just completed, by citizens in that country. Two miles beyond is "Ely's Coal Mine." This is the Jackson stratum, and the first coal vein reached. It is a light, friable, easily ignited coal or rather almost charcoal, admirably adapted to blacksmithing. The vein is but thirty inches thick, but can be worked to furnish an ample sup-



ply. From this point for several miles, the road passes through a sandstone formation—at times requiring heavy cuts through solid stone. The highest bluff through which the road was cut, is ninety feet in height.

At Hamden we took a light carriage, and proceeded to the coal and iron banks of the Raccoon. There can be no question as to the amount and variety of the iron, coal, stone and clay, in that section. Time, however, is required for its development; but we have no doubt that before another census is taken, there will be strange and remarkable changes here—changes, which in time, will make this now sparsely populated section, one of the most populous in the country.

The iron business is the one which seems earliest developed, and at anything like the demand which has existed for the last five years, the business must be a very profitable one. To show the rapid progress of the iron manufacture, and the influence which the Marietta and Cincinnati Railroad has on that business, we give the following list of Furnaces, which have been erected within a year or two:—

|                     |                            |
|---------------------|----------------------------|
| "Cincinnati,".....  | 25 miles from Chillicothe. |
| "Hamden,".....      | 31 " " "                   |
| "Latrobe,".....     | 43 " South of Hamden.      |
| "Eagle,".....       | 6 " from Hamden.           |
| "Iron Valley,"..... | 6 " " "                    |
| "Vinton,".....      | 6 " East of "              |
| "Big Sand,".....    | 15 " " "                   |

Three others in blast, whose names we do not know. Of these, two are in Jackson County, one in Hocking County, and the others, we believe, in Vinton. Most of these furnaces have large amounts of ore or pigs on the line of the road, ready to be carried off.

Each of these furnaces will, in the average, support 500 persons, and then the erection of these eleven furnaces will add 5,500 persons to the population of this region. Each furnace consumes 20,000 bushels of corn, beside a great variety of other products. It is only necessary to state these facts to show the great influence upon the prosperity and wealth of a country, produced by mining establishments of this description.

Notwithstanding the mineral resources of this section, it is by no means unfavorable to agriculture. The uplands produced this year heavy crops of corn, and as a grass country, it has few superiors.

In the hill and rocky part of the road, we were told that herds of deer looked over the bluffs, when the first blasting of the rocks reverberated through the hills. How short the distance, in this fast country, between the wilderness of nature and the height of civilization! Ten years more, and towns, and villages, and furnaces, and forges, and factories will give life and animation to all these forest solitudes. The locomotive will thunder along at forty miles per hour; the factories will crowd the cars with freight; the village school will pour its urchins out to gaze on the

wonders of the road; the church bell will toll for Sabbath meeting, and the long rays of the setting sun will light up one of these rich, picturesque scenes, in which art and nature combine to give beauty to the landscape. So let it be, and as the years roll on, let them add to the Growth, Prosperity, and Glory of our Country.

#### RAILROAD RECEIPTS FOR OCTOBER.

The October receipts of railroads show an immense progress in the traffic of the country, and justify the most sanguine expectations of their friends. The great lines leading West, of course, take the lead; for it is in the West the harvest lies. Of these, the *Pennsylvania Railroad* (always well managed) takes the lead. Its receipts are:

|                           | 1855.            | 1854.       |
|---------------------------|------------------|-------------|
| October.....              | \$474,134.....   | \$333,236   |
| Ten months.....           | \$3,469,924..... | \$3,058,729 |
| Increase for October..... |                  | 140,898     |
| " for ten months.....     |                  | 411,295     |

The whole receipts for 1855 will undoubtedly exceed *four millions*; and be greater in proportion, than any other of the great lines in the country.

|                                          | 1855.          | 1854.     |
|------------------------------------------|----------------|-----------|
| <i>Michigan Central</i> .....            | \$330,749..... | \$267,679 |
| Increase.....                            |                | 63,070    |
| <i>Milwaukee and Mississippi</i> .....   | \$112,553..... | \$ 76,776 |
| October.....                             | 556,838.....   | 380,321   |
| Ten months.....                          | 17,855.....    | 11,313    |
| <i>Detroit and Milwaukee</i> .....       | 81,302.....    | 60,426    |
| <i>New Albany &amp; Salem</i> .....      | 47,851.....    | 33,946    |
| <i>Indianapolis and Cincinnati</i> ..... |                |           |

The following is a summary of the October Receipts for the roads given in the last and present numbers of the *Record*:

|                                | 1855.            | 1854.         |
|--------------------------------|------------------|---------------|
| Pennsylvania.....              | \$474,134.....   | \$333,236     |
| Michigan Central.....          | 330,749.....     | 267,679       |
| Galena and Chicago Union.....  | 318,153.....     | 184,851       |
| Peru & Indianapolis.....       | 14,863.....      | 12,983        |
| Milwaukee & Mississippi.....   | 112,553.....     | 76,776        |
| Covington & Lexington.....     | 39,095.....      | 19,942        |
| Detroit & Milwaukee.....       | 17,855.....      | 11,313        |
| New Albany & Salem.....        | 81,302.....      | 60,426        |
| Indianapolis & Cincinnati..... | 47,851.....      | 33,946        |
| Totals.....                    | \$1,436,555..... | \$1,001,152   |
| Increase.....                  |                  | .40 per cent. |

#### NEW ENGLAND RAILWAYS—MANAGEMENT OF RAILWAYS.

We find in our cotemporary, the *American Railroad Journal*, some excellent and well-timed remarks on the bad management of New England Railways. It is founded on what is called the *decay* of Massachusetts's railways. It sounds a little curious, seeing the New Englanders have been deemed the most prudent, sagacious, and enterprising of all our people. But the remarks might be properly extended to two thirds the railways in the country. The fact is, we want *now* Railroad managers, skillful and upright, more than we want railroad makers. We have learned the last art; but we have not learned the former. To make a railroad is one thing; but to run it profitably is another. Let us scrutinize railway management close, and we shall have things better. Hereafter we propose to compare the management of some of our

railways, and see in what the difference consists.

"Railroads could not be built as they are operated; that is certain. Companies would be ruined, before they could even get their roads in operation. But the building a railroad is a simple affair, to the working of it. If the principle of mutual co-operation be so important in one case, how much more so in the other. One thing is certain. Some better plan of management must be adopted, or our roads will gradually manifest the same tendency to decay that is so strikingly illustrated by the history of the Massachusetts's railroads. This decay is more palpable there than anywhere else, chiefly because the roads of that State have been longer in operation. We must say, however, that we think the standard of management is lower in New England, than out of it. There is less vigor, less ambition, and less ability displayed. Had the Baltimore and Ohio Railroad been a New England work, it would by this time have been where the Vermont Central now is. There is no great New England road, if we except the Western, whose management is at all comparable with the Erie, or the Little Miami, or the Pennsylvania, or the New York Central. In the management of many of the New England roads dullness seems to be stereotyped. We see but little of the vigor and spirit which is the prevailing characteristic of the country. The managers of many of the roads are little better than dull imitators of precedent, whose value they cannot estimate, nor to whose leading, can they rise superior. Our opinion is founded upon results. These results only partially impugn the capacity of the parties having the roads in charge. They are made what they are by a vicious system."

#### COAL AND WOOD FOR LOCOMOTIVES.

The question of economy of coal or wood for the purpose of generating steam on locomotives, is one which must attract considerable attention in railroad management and economy. The question of comparative cost in stationary furnaces is one which has long been settled in favor of coal, and the only remaining point to be determined with reference to locomotive engines, would seem to be the one regarding the form of furnace most suited to the rapid and economical generation of steam.

We are indebted to the Baltimore & Ohio Railroad for the result of a series of experiments made with wood and coal of three different veins from the Cumberland mountains.

The engine employed in these experiments was engine No. 32, having four drivers, 60 inches in diameter, and 70 inches from centre to centre. Its cylinders were 14½ inches in diameter, with 20 in. stroke, and steam cut off at 5-8 stroke. Its fire box was 51½ inches long, 36½ inches broad, and 48½ inches deep. The grate surface was 13.15 square feet in area, and the engine had 142 flues, 1½



inches in diameter, and 97 inches long. Its heating surface may be set down as :

|               |                    |
|---------------|--------------------|
| Fire box..... | 68 55 square feet. |
| Flues.....    | 563.44 " "         |
| Total.....    | 631.99 " "         |

The engine was furnished with a rocking grate, and a "convey pipe" for throwing the sparks from the smoke-box into the receptacle in the chimney.

The experiments were simply series of trips, in which the consumption of fuel and water, and the performance of the engine for thirty-eight miles were carefully noted. The trips were divided into five series, the first made with wood, the second with Piedmont Coal (six feet vein), the third do., the fourth with American Coal (fourteen feet vein), and the fifth with Swanton Coal (14 feet vein.) The following were the aggregate results :

1st. SERIES — WOOD.—Eight trips, thirty-eight miles each, were made.

|                                                   |                   |
|---------------------------------------------------|-------------------|
| Time allowed per schedule.....                    | 1 hour 45 min.    |
| " actually made.....                              | 1 " 48 "          |
| Wood consumed.....                                | 150.49 cub. feet. |
| Water evaporated.....                             | 1160.9 gallons.   |
| Pounds of water evaporated per pound of wood..... | 2.8795            |
| Diameter of exhaust orifices.....                 | 2½ inches.        |

Second and Third Series.—Piedmont Coal, (six feet vein.)

Second Series. Third Series.

|                                                   |             |             |
|---------------------------------------------------|-------------|-------------|
| Number of trips, 38 miles each                    | 8           | 11          |
| Time allowed per schedule.....                    | 1 h. 45 m.  | 1 h. 40 m.  |
| Wood used for kindling.....                       | 12.6 feet.  | 12.5 feet.  |
| Coal.....                                         | 1956 lbs.   | 1401 lbs.   |
| Quantity of water evaporated.....                 | 1174.6 lbs. | 1051.3 lbs. |
| " due to wood used.....                           | 97.3        | 96.7        |
| " due to coal.....                                | 1077.3      | 954.6       |
| Pounds of water evaporated per pound of coal..... | 4.6868      | 5.7004      |
| Diameter of exhaust orifices.....                 | 2½ inch.    | 2½ inch.    |

Fourth Series.—American Coal (14 feet vein); and fifth series, Swanton Coal (14 feet vein.)

Fourth Series. Fifth Series.

|                                                   |             |             |
|---------------------------------------------------|-------------|-------------|
| Number of trips, 38 miles each                    | 4           | 1           |
| Time allowed per schedule.....                    | 1 h. 43 m.  | 1 h. 50 m.  |
| " actually made.....                              | 1 h. 48 m.  | 1 h. 55 m.  |
| Wood used for kindling.....                       | 14.5 feet.  | 10.5 feet.  |
| Coal.....                                         | 1261 lbs.   | 1160 lbs.   |
| Quantity of water evaporated.....                 | 1020.6 lbs. | 1029.1 lbs. |
| " due to wood.....                                | 111.9       | 81.0        |
| " due to coal.....                                | 908.8       | 948.1       |
| Pounds of water evaporated per pound of coal..... | 6.0066      | 6.8271      |

The following are the observations appended to the tables :

"In these experiments the water was carefully measured in fractional parts of the cubic contents of the tank.

"The gallon is calculated as 231 cubic inches, whilst its weight is calculated at 8.353 pounds.

"The water having been gauged altogether in the tank, and there having been upon the boiler no more delicate instrument for ascertaining the water level, than the ordinary gauge-cocks, a slight error may have been introduced, owing to the difficulty of accurately ascertaining, at the commencement and conclusion of each experiment, the presence of the water in the boiler at its normal level.

However, care having been taken to avoid the error whenever suspected, it is not deemed very great, although some discrepancies present themselves in the column of "Total water evaporated," which are only accounted for in that way.

"In calculating the results of the experiments with Coal, it has been thought more correct to make a deduction from the total quantity of water evaporated, of an amount entered in the table as due to wood used (for kindling.)

"This amount is calculated from data based on the results obtained from the experiments of Series 1st, one cubic foot of wood being found capable of evaporating 7.714 gallons of water. One cubic foot of wood being found in the average of, a large quantity to weigh 22.45 pounds.

"The burning of the grate bars in the trips of the 4th and 5th Series is attributed in a great degree to the coking character of the coals from the fourteen feet vein; which, instead of permitting the heat evolved from combustion to be radiated to the surface of the fire-box, causes it to be reflected downward upon the grate.

"In regard to smoke the 'Piedmont' Coal was found much less objectionable than the 'American,' for with it there was rarely observable more than a single puff of smoke after each shovel full of coal thrown into the furnace, and that consisting generally of fine particles of unconsumed coal drawn through the flues by the action of the draft. This was also found to be greatly diminished as the exhaust orifices were enlarged, and had the construction of the exhaust-pipes of the engine permitted their further enlargement, the steam-generating capacity being found more than sufficient with the largest size used, it is believed that there would have resulted a corresponding reduction in the quantity of smoke evolved, with increased economy of evaporation.

"There was very little smoke observed in using 'Swanton' Coal, quite as little as from 'Piedmont,' which was thought to be owing in a great degree to a deficiency of draft, and consequently slow, though economical evaporation with the former article."

These experiments show one pound of coal to be capable of evaporating about twice as much water as one pound of wood. There will, therefore, be considerable economy in the amount of fuel to be transported on the tender. Beside this consideration, the increasing scarcity of wood, and its increasing price, render experiments of the character of the above of great practical value.

The Little Miami Railroad has ordered two of General Moseley's tubular wrought iron arch bridges, to be put up immediately.

#### OHIO AND MISSISSIPPI RAILROAD.

We regret to learn, that the affairs of this Company are again, in a bad condition. A letter appears in the papers, from Mr. Glenn, the acting President, stating that unless new, and efficient means are adopted by the stockholders, the road will probably pass to the creditors. We had supposed, that the late financial arrangement, said to be completed, would accomplish the object in view. But Mr. Glenn now states an entirely new fact; viz. that this arrangement was judged by legal gentlemen, to be illegal, and thus falls through.

About \$1,500,000 are required, and as this is only about ten per cent. on the whole cost, it seems very extraordinary that there should be any real difficulty in finishing the work.

The *Stockholders*, if the reports heretofore made are correct, have about \$6,000,000 at stake. Now, an assessment of 25 per cent. on this, in the shape of a *new loan*, would accomplish the object. They would stand thus:

|                                    |             |
|------------------------------------|-------------|
| 1st. A loan Secured.....           | \$1,500,000 |
| 2d. Gain on Stock 50 per cent..... | 3,000,000   |

They would then have.....\$4,500,000  
If they do not, they will have..... 000,000

We should think such a problem would be easily solved by wise men.

#### Correspondence.

TAZEWELL, Nov. 8th, 1855.

MESSRS. T. WRIGHTSON & Co.—It is my purpose to keep you informed from time to time, in regard to progress and movements of the Cincinnati, Cumberland Gap, & Charleston Railroad Company. No railroad in the state, has a fairer prospect of speedy completion than the above, on the 18th of last October, 30 miles of the grading was put under contract to responsible contractors, binding themselves to have the work ready for laying the iron by the 1st. of next Feb. a year. On the 1st. day of this month, \$64,219 county bond stock was added to the stock subscription of this road by a vote of the people of this county, (Cincinnati) by a majority of 488 votes, and this too after individuals of the county had taken a large amount of stock. So you see our people are fully alive to this great railroad enterprise. The same feeling prevails along the line of this road, both in north and south Carolina; in north Carolina, the French Broad Railroad Company, (which is a continuation of our line of road), have organized under their Charter, and have a body of engineers making the necessary preliminary surveys to a final location of the road, and to letting it to contract, so in a short time the whole line of road from Cumberland Gap, via Tazewell, Bean Station, Morristown, Nashville, Spartansburg to Charleston, will be under contract, and the only remaining link in the whole line from Cincinnati to Charleston



that will not be in a rapid state of completion, will be that between Lexington or Paris, 128 miles, from the above facts, will not the friends of this link in this vast enterprise in Kentucky and Cincinnati, be aroused by a strong sense of duty, and self interest, and take hold of this short section of this great railroad, with a strong arm, and determined will, and speedily put it in a state of completion. It is needless for me to speak of the great advantages of this road, to the people of Kentucky, and the City of Cincinnati. They are two obvious to all, it will connect Cincinnati with Charleston by a railroad line, at least fifty miles shorter than any contemplated railroad. It will connect her with the richest mineral, and agricultural portions of east Tennessee, and western Virginia, by a railroad line at least fifty three miles shorter, than the contemplated Danville, and Knoxville railroad. It is the only railroad that will connect her with the North Carolina central railroad, as the Legislature of that state has made no provision for the extension of that road, further west than a connection with our road at Nashville. It will connect your city with Savannah, Pensacola, and Mobile, by the east Tennessee and Virginia, and east Tennessee and Georgia roads, without a greater increase of distance over the Danville and Knoxville road, than 35 miles, and by a shorter line by about five miles, if Knoxville would extend her road to Cumberland Gap, instead of Wheelers Gap, and connect our road there, instead of at Danville, which she could do under her charter; and also would meet the spirit of the Kentucky Union railroad charter, as that provides as follows: "The line is to commence at, or near Newport or Covington, and extend thence to Cumberland Gap, with the privilege of a branch from any point on the line, to the Tennessee state line in the direction of Knoxville," however it is immaterial to us, what line of policy should be pursued by the friends of that road, (Knoxville and Kentucky), whether they extend their road to Danville, or connect it with ours at Cumberland Gap, or the Kentucky Union road, north of that point, we have no wish to see it fail, but anxiously hope for its surveys, a large section of country will be immensely benefited thereby. The following distances will show the above statements to be substantially true.

|                                                  |            |
|--------------------------------------------------|------------|
| From Cincinnati to Danville.....                 | 132 miles. |
| " Danville to Knoxville.....                     | 145 "      |
| " Knoxville via. Ruban Gap to Anderson C. H..... | 197 "      |
| " Anderson Court House to Charleston.....        | 225 "      |
| Total distance.....                              | 699 "      |
| From Cincinnati to Cumberland Gap.....           | 224 "      |
| " Cumberland Gap to Paint Rock.....              | 90 "       |
| " Paint Rock to Ashville.....                    | 43 "       |
| " Ashville to Spartanburg.....                   | 65 "       |
| " Spartanburg to Columbia.....                   | 95 "       |
| " Columbia to Charleston.....                    | 130 "      |
| Total distance.....                              | 647 "      |

|                                                                                                           |            |
|-----------------------------------------------------------------------------------------------------------|------------|
| Distance from Cincinnati to Lynchburg, Va., via. Danville and Knoxville:                                  |            |
| From Cincinnati to Knoxville via. Danville.....                                                           | 277 miles. |
| " Knoxville to Bristol, East Tenn. & Va. Railroad.....                                                    | 130 "      |
| " Bristol to Lynchburg.....                                                                               | 204 "      |
| Aggregate.....                                                                                            | 611 "      |
| From Cincinnati to Cumberland Gap.....                                                                    | 224 "      |
| " Cumberland Gap to Morristown.....                                                                       | 44 "       |
| " Morristown to Bristol.....                                                                              | 86 "       |
| " Bristol to Lynchburg.....                                                                               | 204 "      |
| Aggregate.....                                                                                            | 558 "      |
| Distance from Cincinnati to Knoxville via. Cumberland Gap and Morristown:                                 |            |
| From Cincinnati to Cumberland Gap.....                                                                    | 224 miles. |
| " Cumberland Gap to Morristown.....                                                                       | 44 "       |
| " Morristown to Knoxville.....                                                                            | 44 "       |
| Aggregate.....                                                                                            | 312 "      |
| Distance from Cincinnati to Knoxville via. Lexington, Cumberland Gap and an Air Line thence to Knoxville: |            |
| From Cincinnati to Cumberland Gap.....                                                                    | 224 miles. |
| " Cumberland Gap to Knox., Air Line.....                                                                  | 42 "       |
| Aggregate.....                                                                                            | 266 "      |

We have thought proper to make the above statement of facts, for the purpose of placing the merits and prospect of the Cincinnati Cumberland Gap, and Charleston railroad, properly before the country, and not in a spirit of detraction or invidiousness, we sincerely wish success to all railroad improvements, calculated to develop the resources of the country.

Yours truly,

M. CARRIGER.

We would again call the attention of Railroad men to the fact that they can obtain all kinds of Railroad Printing at our office.

## Railroads.

### BLUE RIDGE RAILROAD.

From the Charleston Mercury.

The President and Directors of the Blue Ridge Railroad Company, in South Carolina, respectfully present the following Report:

The Board are gratified in being able to announce to the Stockholders that the Legislature at its last annual session, granted additional aid to that which was provided in the act incorporating the Company; but with some modification. By the Act of 1854, the state agreed to guaranty the Bonds of the Company to the amount of \$1,250,000. At the last session, the Company presented their petition to the Legislature, praying aid larger in amount and on more advantageous terms. The petition met with a favorable reception; an act was passed, providing for a subscription in behalf of the state, for \$1,000,000 to the stock of the Company, and for the guarantee of the bonds of the Company by the state to the amount of \$1,000,000 more, on certain terms and conditions. One of these conditions was, that the said Bonds should be secured by a mortgage of the whole estate, property, and funds of the several Companies, in the states of South Carolina, Georgia, North Carolina and Tennessee, with a saving and exception, however, in the case of the Knoxville and Charleston Road, of the lien in favor of the State of Tennessee, on the property and funds of the said Company. The Company was authorized to secure, without any priority or preference, other bonds of the Company, not to exceed, however, in the whole, \$2,500,000.

In conformity with this condition, a deed of trust, bearing date 20th April, 1854, was duly executed by all the Companies, whereby all of the estate, property and funds of the Companies in their respective states, as provided by the act, were conveyed and transferred to Mitchell

King, James Adgar, and James Rose, in trust to secure the payment of the bonds of the Company to the amount of \$2,500,000. The bonds have been printed and many have been prepared and executed by the officers of the Company, of which some have been delivered to the contractors in part payment of work they have done on the road. The Board have not had any occasion to apply to the proper officers for the guarantee of the state to any part of the Bonds.

By this additional aid the Board cannot doubt that the construction of a Railroad from Anderson to Knoxville is put on secure ground.

The associated Companies have, with gratifying harmony and zeal, co-operated for the progress of the work. Agreements have been executed between the Blue Ridge Railroad Company in South Carolina, and each of the other Companies, under powers granted by their respective charters, which secure unanimity in the progress of the work, and in the operation of the road when it is completed. But the several corporations are so identified in interest in the common road, that no causes for disturbance can be foreseen or conjectured.

Instalments have been received to the amount of \$463,655. The State 6 per cent. bonds given in payment of the instalments on the State subscription, were sold at par. A loss of \$9,047.61 was sustained on the city bonds taken in payment of the city subscription.

The cost of engineering, though apparently large, is very moderate, when the length of the road and the difficulties of the location are considered.

The route required the most careful examination of the country, and repeated trials of lines through broken and difficult passes along water courses and mountain sides, as well for the location of the road, as also to effect a saving in construction, by making such slight deflections in the course of the road as might reduce the amount of the work, without materially varying the located line.

The total grading done by the contractors amounts to \$510,357.77. Of this, one-half was paid in cash, one-fourth in the stock, and one-fourth in the bonds of the Company.

It became necessary, in order to save the charter of the Knoxville and Charleston Company in Tennessee, that the road should be commenced in that state. Accordingly, one mile of the road, extending from near the depot ground in Knoxville, through the corporate limits of the city, towards the Holston river, was let to O'Hara and Lamon. This work is nearly completed, and \$15,810.93 is charged for it in the account.

Masonry and bridging, in addition to deep cuts and embankments, have made this mile expensive. The iron which is charged in the account, was purchased in compliance with an agreement with the Georgia and East Tennessee Railroad Company, that the latter company should make the grading for a common track through their own grounds, for their Road and the Knoxville and Charleston Road; and that the latter company should furnish the iron for the track.

The cash resources of the Company are:

|                                                                          |             |
|--------------------------------------------------------------------------|-------------|
| City of Charleston subscription.....                                     | \$1,049,000 |
| City of Charleston private subscription.....                             | 53,000      |
| State subscription.....                                                  | 1,000,000   |
| State guarantee of bonds.....                                            | 1,000,000   |
| State aid to Pendleton Railroad.....                                     | 43,500      |
| Private subscription to Pendleton Railroad.....                          | 52,000      |
| Private subscription to Blue Ridge Railroad Company of Ga.....           | 3,600       |
| North Carolina subscription.....                                         | 55,400      |
| Tennessee State aid (for iron).....                                      | 640,000     |
| Tennessee State aid (for bridges).....                                   | 100,000     |
| Subscription of Knox and Blount Counties, and private subscriptions..... | 250,000     |
|                                                                          | 4,146,500   |
| In addition to this, are the mortgage bonds of the Company.....          | 1,500,000   |
|                                                                          | 5,646,500   |



Estimated cost of the Road, with iron, complete under the contract with Anson Bangs & Co. 6,800,000  
 One half paid to the contractors in stock and bonds 3,400,000  
 Balance to be paid in cash 3,400,000

It will appear from the report of the Chief Engineer, that nearly two-thirds of the grading of the Road in this State (51 miles) is finished, and a small portion of the road in Georgia.

Though the contractors have been able to let out the grading advantageously, yet considering the cash cost of the tunnels, masonry, bridges and iron, the Board is quite satisfied with the contract, and only desire that it be performed according to its terms.

The tunnels, though they must be of slow work, present no obstacle, either in cost or construction, to the completion of the road. Experienced and competent contractors are willing to work them for the estimated prices in cash. The despondency which a tunnel produces in the minds of some persons arises from a want of information on the subject. The Neithe Tunnel, near Marseilles, is 15,153 feet long. On the Genoa and Turin Railway there is a tunnel two miles long; and in twenty-five miles through the Appenines there are nine more. The London and Birmingham Railway has eight tunnels, the London and Dover five, and the Newcastle and Dover five. The Woodhead Tunnel, between Manchester and Sheffield, is three miles long. In the United States, the Baltimore and Ohio Railroad has sixteen tunnels; the Parkersburg Road seventeen, and at the crossing of the Blue Ridge, the Virginia Central Railroad has four. It is needless to multiply instances. The cost of some of these tunnels was more, and of some less than the estimated cost of the Blue Ridge Railroad Tunnels, not varying, generally, much. The tunnel on the Nashville and Chattanooga Road is more than half a mile long, through a compact Limestone Rock, and was finished under a contract for \$3.25 per cubic yard. It is true that the contractor lost money, and the Company presented him with \$10,000. The Stump House Tunnel is estimated at \$5 the cubic yard.

The Board are deeply impressed with the importance of urging the road to speedy completion.

No adequate estimate can be formed of the trade which, in time, must be carried over this road, and any attempt at a statistical exhibit, would be charged with extravagance. The products of Tennessee, Kentucky, North Alabama, Mississippi and Georgia, must seek Atlantic ports. They consist of wheat, flour, bacon, tobacco, cotton. The surplus of production over the demand for consumption, already great, must be increased indefinitely by the creation of a market. Charleston, by way of the Blue Ridge Railroad, will be the nearest Atlantic port to Knoxville. From Covington, opposite to Cincinnati, and from Louisville, Kentucky, railroads are in operation to Lexington. A company is organized to construct a road from Knoxville to Lexington. A contract is made for making thirty miles out of Knoxville, and to the Tennessee line, if the company should so determine. The contractors, if they are not now at work, will be in less than one month. Before our road to Knoxville can be finished, it is probable this road will be in operation. The long desired connection between Charleston, and Louisville, and Cincinnati, will then be accomplished.

Little trade can be gleaned east of the Alleghenies compared with that boundless harvest which lies beyond them. To this region, as to a goal, every Atlantic State, and Gulf State too, are bending their energies. Railroads are completed through the Northern and Middle States, and are in progress from every Southern Atlantic State. Maryland has reached the Ohio by its Baltimore and Ohio Railroad—Virginia has penetrated the Blue Ridge—North Carolina is moving in the same direction—Georgia has accomplished the connection of her seaports with the Western rivers—Alabama and Mississippi have roads in progress to the same end. The Blue Ridge Railroad is the enterprise of South Carolina. A united, hearty and vigorous effort must accomplish it, and the earnest efforts of the Board are directed to its speedy completion. EDWARD FROST, Pres't.

#### ENGINEER'S OFFICE, BLUE RIDGE R. R. Co. Anderson, November 1, 1855.

##### To the President and Directors:

Gentlemen: I have to report to you the condition and progress of the work under my charge.

Viewing it as a whole, the amount of which has been done up to this time is far from being satisfactory, but in this State and Georgia, to which portions, operations have been almost exclusively confined, (if we except the Tunnels and Bridges) much has been accomplished.

On the first division from Anderson to the Seneca river, a distance of eighteen miles, not more than two miles remain to be graded. Two heavy cuts are unfinished, which in the commencement contained over two hundred thousand cubic yards of material to be removed. Eighty thousand only remain, on which there is a force that will complete them in the next five months. The Culvert-Masonry on this division is nearly completed; but one culvert of magnitude remains to be finished. Of the Bridge-Masonry and Bridges, I am sorry to say, I cannot speak so favorably.

There are three streams to be crossed between Anderson and the Seneca river—the twenty-six, twenty-three and eighteen mile Creeks. The cost of crossing these will be large, particularly the first, which will only be exceeded by that of the Holston and Tennessee rivers. The masonry in the piers and abutments is eight thousand perches. To complete these Bridges will require six months; and although notice was given to the contractors four months since to commence this work, nothing yet has been done towards it. I am told, however, that a beginning will soon be made.

On the second division (eighteen miles) from and including the Seneca River to the foot of the Turnip Top Mountain, the Road is also in a state of forwardness. The quantity of grading to be done is less than on the first division, although extending over a greater distance. The work is very light, with the exception of one cut, known as the Shiloh Cut, so that a reasonable force could, in three months, place this division in readiness for the superstructure, excepting the Trestle-work and Bridge over the Seneca, which will require six months for their completion. The Culvert-Masonry on this division is also in a fair state of progress. The Seneca is the only stream of any note to be crossed, and the Bridge-Masonry will consequently be light. This division might very easily be prepared for the superstructure, at an early period in the next year, should it be desired.

The third division from the foot of the mountains to the Chattuga River, fifteen miles, is one of the heaviest and most costly portions of the road, on which three-fourths nearly of the grading has been done, but at such detached points that no continuous length of consequence has been finished.

The Culvert Masonry in this division is also in a state of forwardness. Only two or three culverts remain to be put in, which can be completed during the present year, if deemed advisable. The streams on this division are the Village Fork, Changa and Whetstone, none of which are large. The two last will be crossed on short, low trestle-work, so that there will be no Bridge-Masonry except at the former, where there will be a bridge of one hundred feet span. This division will, nevertheless, be much more costly than any other on the entire line of road, not only on account of the mountain country which is here met with, but more particularly on account of the three tunnels which occur within it. But little progress has yet been made in these tunnels, not, however, because of any difficulty which the work itself presents, but for the reason that the contractors who commenced the largest and most expensive of them, now two years since, abandoned it soon after doing so, and have not since had any force of consequence upon them. The main tunnel will be 5,800 feet in length, and as it is determined to sink four shafts, if a competent force be employed, and the work be prosecuted with vigor, the tunnel can be finished in two and a half to three years after the shafts are sunk.

The other tunnels on this division being short, there will be little or no difficulty with them, be-

yond what there would be in deep cutting; and it is only with a view of saving in cost that they are resorted to in preference to deep cuts.

This division of Road has been much improved by a thorough revision of the line since first located. The change made on this, together with two small ones on the second division, will save in the grading \$100,000, without any detriment to the grades or curves, and with an increase of distance less than one-fourth of a mile.

The fourth division, commencing at the Chattuga, includes the bridge over that stream, and terminates at the Locust Stake. This division, which is seventeen and a half miles in length, comprises the Road within the State of Georgia. For twelve miles it passes through a country similar to the mountain region in South Carolina, and will be expensive. The remainder of this section will be very easy and light. There are two tunnels on this division, measuring together three thousand four hundred feet, neither of which has been commenced; and I regret to say that very little progress has been made with the grading, in consequence of the small force that has been employed upon it. The culvert masonry is now advancing satisfactorily, and will be completed in the course of a few months. Of heavy bridging and bridge-masonry there will be none in this division, except at the Chattuga, which will be crossed on piers one hundred and ten feet in height, and by three spans of one hundred and twenty feet each. The estimated cost of this bridge is \$60,000.

On the fifth, sixth, seventh, eighth and ninth divisions, including seventy-four miles in North Carolina, and thirty-four miles in Tennessee, no work has yet been done.

The tenth division comprises the last twenty miles, terminating at Knoxville. In order to comply with the charters of the Knoxville and Charleston Railroad Company, one mile from the East Tennessee and Georgia Railroad, to the Holston River, was in January last let to O'Hara & Lamon, who have advanced satisfactorily with the work, and they will no doubt complete it in the ensuing month, at a cost within the estimate. No other portions of the work has been commenced in Tennessee.

In this State there will be fifty-three miles of road, and three small streams will have to be crossed by bridges. The principal and most important river to be crossed on the entire line of the road is the Holston, the Masonry-work at which will be expensive; the piers on an average will be sixty feet in height; and the spans, of which there will be nine, one hundred and twenty feet each. The whole length of the bridge will be one thousand one hundred feet, and the estimated cost \$75,000. It is probable that the Tennessee may have to be crossed above James's factory, with a view to a saving of expense and distance; this will involve the necessity of recrossing the river, so that, should this line be adopted, two important bridges, in addition to that over the Holston, will have to be built in Tennessee; but in this case, the bridge over Abram's Creek will be dispensed with.

The quantity of material removed on the three first divisions of road is 1,781,000 cubic yards. The estimated amount in the first instance was 3,744,000, which has been reduced by the revised locations, and a change of slopes, to 3,044,000; leaving now to be removed, on these divisions, 1,263,000 cubic yards. This quantity will, with the present force on the line, be removed during the ensuing year, and (with the exception of the tunnels) the road may be put in order for receiving the superstructure. For more satisfactory information, I refer you to the table hereunto annexed, showing the amount of work done on each division of road, with its cost.

TABLE SHOWING THE AMOUNT OF WORK DONE  
 ON EACH DIVISION OF ROAD.

| FIRST DIVISION.    |                  |                    |
|--------------------|------------------|--------------------|
| MATERIAL REMOVED:  |                  |                    |
| 599,941 earth..... | 36,312 rock..... | 636,253 cubic yds. |
| Masonry.....       |                  | 1634 perches       |
| Clearing.....      |                  | 17 miles           |
| Total cost.....    |                  | \$160,921 41       |



## SECOND DIVISION.

## MATERIAL REMOVED:

372,647 earth.....14,897 rock.....387,544 cubic yds.  
Masonry, exclusive of iron pipes.....401 perches  
Total cost.....\$88,566 03

## THIRD DIVISION.

## MATERIALS REMOVED:

648,219 earth.....107,217 rock.....755,436 cubic yds.  
Tunneling.....3,305 cubic yds.  
Masonry.....2,319 perches  
Clearing.....15 miles  
Total cost.....\$250,920 49

## FOURTH DIVISION.

## MATERIAL REMOVED:

71,385 earth.....18,724 rock.....90,109 cubic yds.  
Masonry.....2,904 perches  
Clearing.....7 miles  
Total cost.....\$37,854 87

## TENTH DIVISION.

## MATERIAL REMOVED:

25,514 earth.....5,949 rock.....31,463 cubic yds.  
Masonry.....3,578 perches  
Total cost.....\$18,840 74  
Total number of cubic yards.....1,900,805

From the manner in which the work has opened, and the appearance at this time, I may with confidence say that the grading in South Carolina will fall short of the estimate 300,000 dollars.

The grades, for a mountain country, are highly favorable, more so than can be found on any other road which crosses the Blue Ridge, the maximum in the direction of the heavy traffic in no instance exceeding forty-five feet to the mile; and as the amount of freight carried in this direction will exceed that transported in the opposite, at least one-third, this road, in regard to freights, may fairly be classed with those roads having only forty-five feet grades as their maximum.

An Engine, having twenty tons on her driving wheels, will take up in the direction of Knoxville to Charleston 200 tons, equal to 1000 bags of Cotton, weighing 400 pounds each, exclusive of herself and cars. This engine will be able also to take from Charleston to Knoxville the same number of cars as she will from Knoxville to Charleston, two-thirds being loaded and one-third empty, which will generally be the case.

Accompanying this report is a profile of the road divided into sections of one mile each, showing—

First. The quantities of excavation and embankment in excess on each mile, as estimated with its cost.

Second. The curves and tangent lines, with their length and degrees of deflection.

Third. The grades, with their length, and the heights of each mile, above and below the datum line, based on the lower part of the pillars at Anderson's Court House.

Fourth. The tunnels, with their length.

Fifth. A corresponding profile of those divisions, on which grading has been done, showing the work done and that yet to be done.

Respectfully submitted. Your obedient servant,

GEORGE B. LYTHGOE.

Chief Engineer.

THE CUMBERLAND GAP R. R.—This road is under contract from Newport to Bean's Station, a distance of thirty miles, and beside this, the Bridges over Holston and Clinch rivers are under contract. Thursday, the 15th day of Nov. '55, was appointed as the day to commence the first work, and to cut the first dirt, in the construction of this great Railway line. The Contractors are bound to complete their jobs by the first of January, 1857. This road crosses the Virginia and Tennessee road, at Morristown, on the line between the counties of Grainger and Jefferson.—*Knoxville Whig*.

The *Asheville Spectator* says that the \$200,000 requisite for the French Broad Railroad Company, via Asheville to Newport has been subscribed by good men—that the Charter is thereby secured.

## TO THE STOCKHOLDERS OF THE OHIO AND MISSISSIPPI RAILROAD COMPANY.

The Injunction Suit instituted by the City and County of St. Louis in the Court of Common Pleas, to restrain sale of the above road, under Deed of Trust executed to us on the 5th of June last, has been, as you are doubtless aware, dissolved, and the Trustee has advertised the road and property conveyed to him, for sale on the 20th inst.

At different times within the past six months, with a view to save the Stockholders of this Company from loss, we have made various propositions to effect that object.

As early as May last, we proposed to the City, that if it would raise the sum of \$250,000, with which to complete the road to Vincennes, and pay the interest on the bonded debt of the Company, falling due in July last, we would postpone the collection of the large debt due us until the earnings of the road should enable the Company to pay us.

This proposition did not meet with sufficient favor to be adopted; and to raise means to accomplish this indispensable object, (completion of road and payment of interest,) it became absolutely necessary for us to demand and receive all the security which the Company could give, to make it safe for us to make the further advance—in fact, in no other way could we have obtained the necessary means. The road was completed and opened on the 4th of July, and the interest promptly paid at maturity.

On the 29th of June we advised the City, through its Mayor, that we had succeeded in raising the means with which to accomplish the last named facts, and expressed a willingness to co-operate with the city in devising some plan by which the property of the Company should be preserved to the Stockholders. Again, on the 7th of July, at the request of the Committee of the City Council, having in charge the City's interest in connection with this Company, we proposed a plan for the payment of our claim, which we then, and now, regard as feasible, and which, if adopted, would have paid our claim, and saved the entire stock of the Company. This proposition was referred, by the Committee aforesaid, to the Council, but resulted nothing except a determination to resist the payment of our claim; and in pursuance of said design, an application was made to Judge Treat, in vacation of his Court, for an injunction to stop the sale of the road under Deed of Trust to us, and further to prohibit the Company from paying, in any way, its indebtedness to us, so secured.

The prayer of the petitioners was accompanied by affidavits sufficiently strong to warrant the granting of the order, which was done on the 7th of August; and the order remained in force from that time until the 30th of October, when by order of the same Judge, the injunction was dissolved, and the plaintiffs thrown out of Court on the ground that they were not Stockholders of the Company, and therefore could not bring the suit.

The foregoing is a brief history of events which transpired between the month of May, when proposed to the City that it should furnish \$250,000, and thereby preserve in tact all the interests of the Company, and the time of the dissolution of the injunction.

We have purposely omitted recital of the disgraceful wranglings which occupied so large a share of the public mind during this period, and which doubtless so beclouded the better judgments of the actors, that, in consequence,

great public interests have suffered neglect, or have been altogether sacrificed. And, notwithstanding our losses, in consequence, have been very great, and the damages to ourselves and others, have been irreparable, our object is not now to stir up animosities, but to make another effort for the saving of the stock of the Company, and with that end only in view, we propose that a meeting of the stockholders be called at once to act upon the following, viz:

1. All legal proceedings, both in and out of this State, connected with this Company, against us or either of us, or any of the officers or Directors of the Company, to be discontinued and dismissed.

2. A recommendation to the Directors of the Company to issue what may be arranged to be (proper parties uniting) 3d Mortgage Bonds to the extent of \$1,500,000 to be sold to us at fifty cents on the dollar, the proceeds to be applied first, to the full payment of the debt due us by the Company and *unsecured*, and the balance on the note of June 5th, and now secured by Deed of Trust, and under which the road, etc., is advertised for sale.

3. For the purpose of putting to rest all questions relative to stock issued under amendments to the charter at different times, the Stockholders to ratify all amendments thereto, and recognize as valid stock issued heretofore under the same.

4. The Stockholders to agree, that in case the City and County will pay, within twelve months from this date, the balance due on note of 5th June, as aforesaid, taking therefor the stock of the Company, that they will adopt and accept as legal and binding upon the Company, the subscriptions heretofore illegally made by the City and County.

5. The foregoing being done, we hereby agree that we will arrange to stop the sale of the road and property advertised for the 20th inst, and further, that the same shall not be sold for the period named above, under said deed of trust, thereby giving the City and County time to obtain necessary legislation to legalize subscriptions already made, and for the further subscriptions necessary, and the issuance of Bonds to pay same and negotiate their securities.

PAGE & BACON.

St. Louis, Nov. 12th, 1855.

*St. Louis Intelligencer.*

## MARIETTA AND CINCINNATI RAILROAD.

The track of the Marietta and Cincinnati Railroad is now laid to Hamden, and will, in a few days, be open for travel; it has there met the Hocking Valley Road from Portsmouth, completing a railroad connection, though not of the best, between that town and Chillicothe.

We are assured that between Hamden and Big Sand the work warrants the expectation that the track may be laid up to the latter point within the next six weeks, or at latest in two months; another party will commence at Athens to lay the track westward in about ten days, expecting to reach Big Sand and join there with those working from this end at about the same time, thus completing the line so far as Athens, and passing through the heart of the richest mineral region in the West.

Beyond Athens the work is being prosecuted with great vigor; much of that which is of a heavy character, is in an advanced state, and before the next season closes Marietta will have heard the snorting of the iron horse.



Between Marietta and Wheeling a large amount of work has been done, and that which yet remains is light.

Of the work done this season are six or seven pieces of very heavy trestle work, altogether making more than half a mile of distance, and between Hamden and Athens there is nearly a mile of similar work. Warned by the experience of other roads on similar work, the greatest care has been taken in the plans and execution of these works, and they only require to be seen to give the assurance of safety and stability—such as few such works possess.

Raccoon Creek, up the Valley of which the line runs, is a very crooked stream—and to make such a road as this, it became absolutely necessary to cross it eight or ten times in that number of miles. The bridges here are in a state of forwardness that gives warrant that the work will not be delayed there, and that when up they will do credit to the builders.

Large quantities of iron, the produce of furnaces already established are awaiting the finishing of the road as a means of transportation.—*Scioto Gazette.*

#### CINCINNATI & MACKINAW RAILROAD.

The citizens of Michigan have held several meetings recently relative to the above road, and have resolved to do something. They appear to have been suddenly woke up to the importance of promoting their own interests. They express the opinion that we have so often before advanced, that "those who dance, should pay the fiddler," or that those who are to be most immediately benefitted, should build the road. This is a correct principle. And, as it is asserted, and no doubt truly, the U. S. Government is the largest landholder on the route, that Congress should appropriate land to aid in the project, whereby the value of the public domain remaining on hand will be made worth twice as much as the entire amount now in its possession.

The meeting appointed a committee, to take the necessary steps to organize the company under the general railroad law of Michigan.

PROGRESS OF THE CHICAGO, ST. PAUL AND FOND DU LAC RAILROAD.—We learn that at a meeting held at Janesville on Saturday, which was addressed by William B. Ogden, Esq., of this city, subscriptions to the amount of \$250,000 were received to the stock of this road, and on Monday morning the contractors commenced work upon the section between Janesville and Woodstock, a distance of 38 miles, with sufficient force to carry the work forward rapidly. A considerable portion of the road is graded for this distance, the iron is provided, and we understand that Mr. Ogden stated, at the meeting referred to, that the whole section would be ready for the cars by the first of March, thus uniting Chicago and Janesville by rail.

This will be gratifying intelligence to our citizens and to all the people along the line. This is destined to be one of the most important lines of railroad for freight and travel centering in our city. It will as effectually bring the trade of southern and middle Wisconsin to our doors, as the Central does that of southern and middle Illinois, and we believe even more so. And it is constantly to go on increasing in importance. Who can predict its business when it shall have penetrated to the heart of Minnesota and stretched out its iron arm to Lake Superior?

## Miscellaneous and Mechanical.

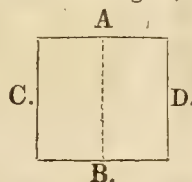
*Editor of the Railroad Record.*

I have noticed the communication of W. W. M. in which after giving me the credit of being generally correct in positions taken in my former article, on the strength of Steam Boilers, he makes one exception, viz. "the mode of calculating the tendency to rend or burst in a cylindrical Boiler," and goes on to explain, what he conceives to be my error.

I think that a little further reflection on his part, will lead him to the conclusion, that the error is in his mode of calculation, and not in mine.

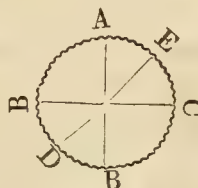
With a view to aid him in his investigation, I present the following remarks.

Suppose the cross section of the Boiler was square, as shown in the figure, and it was de-



sired to estimate the pressure tending to tear it asunder, on the line A. B. I presume he will readily admit, that it would be proper to estimate the force acting upon the sides C. D. at right angles to said line; and further, that the force acting parallel to line A. B. would not affect the question.

Supposing this to be admitted, then I ask him to apply the same mode of reasoning to a boiler, having a cylindrical section shown in the following figure:



and was desired to ascertain the tendency to rupture upon the line, A. B. the forces to be estimated, would be only those acting at same angle with that line; as for instance, on the line B. C. at right angles, the force tending to rupture on the line A. B. would equal the whole force exerted on the line B. C. but upon the line D. E. say at an angle of 45°, it would act to rupture the Boiler upon the line A. B. with but one half the total force exerted upon the line D. E.; and so with any other force acting at an angle with the supposed line of rupture.

The above illustration is not correct, but is merely to show that W. W. M. is in error, in basing his calculations as he has done upon the circumference of the circle.

The true theory is, that the elasticity of the contained steam acts in right lines, equally in

every direction, and tends to rupture the cylinder equally at any two points diametrically opposite, and the amount of that tendency, is correctly shown in my former article.

If W. W. M. will apply his mode of calculation to the Boilers on the High pressure boats of the Western rivers, taking the actual pressure formerly carried in many instances, he will find that they ought to have burst in many cases, when they did not.

The same mode of calculation, which was used by me in my former article, is correctly applied in estimating the strength of Cylinders for Hydraulic presses, as has been tested by actual experience. If W. W. M. has the opportunity I would suggest to him, to apply his mode of calculation to an hydraulic press, which is in use, and compare the result with the actual practice. W. C. C.

SHIPPING OF THE WORLD.—The immense increase of the shipping of the United States furnishes one of the strongest and most satisfactory criterions of the magnitude of our commerce, and the unparalleled prosperity of the country. It will doubtless surprise most of our readers to learn, that both in number of vessels and tonnage, the United States are ahead of Great Britain.

The following table shows the comparative strength of the commercial marine of the principal nations of the world in 1854:

|                                                         | Vessels. | Ton'ge.   |
|---------------------------------------------------------|----------|-----------|
| United States.....                                      | 40,500   | 5,661,418 |
| Great Britain and Colonies.....                         | 35,960   | 5,043,270 |
| France.....                                             | 14,154   | 716,230   |
| Spain.....                                              | 7,986    | 319,021   |
| Sardinia, Tuscany, Naples, Sicily and Papal States..... | 17,097   | 546,021   |
| Austria.....                                            | 7,703    | 324,447   |
| Greece.....                                             | 4,970    | 264,981   |
| Turkey.....                                             | 2,220    | 882,000   |
| Holland.....                                            | 2,190    | 264,984   |
| Hamburg.....                                            | 369      | 119,881   |
| Bremen.....                                             | 500      | 100,000   |
| Prussia.....                                            | 1,990    | 368,729   |
| Denmark.....                                            | 4,789    | 208,109   |
| Norway.....                                             | 852      | 388,032   |
| Sweden.....                                             | 886      | 147,928   |
| Mexico, and the States of South America.....            | 1,530    | 193,715   |
| Russia.....                                             | .....    | 105,509   |

The shipping of the world is estimated at 150,500 vessels, and the aggregate tonnage at 15,500,000.

Hunt's Magazine estimates that at fifty dollars per ton, the shipping of the world is worth the enormous amount of \$775,000,000; of this fifteen and a half millions of tonnage, more than ten and a half millions belong to the English race.

MEMPHIS AND CHARLESTON RAILROAD.—This gigantic enterprise is much further advanced than most persons suppose. The track from Decatur to Huntsville is completed, and the cars are daily arriving and departing at each place. The track is being laid both ways between Stephenson and Huntsville, and by the first of January, this road will form a connection with the Nashville and Chattanooga road. When this occurs, the line will be continuous from Chattanooga to the Mississippi line, and only some forty miles of staging between Knoxville and Memphis, and between Charleston and Memphis. In the course of the next year, that road, as well as the one leading from here to Lynchburg will be complete.—*Knoxville Whig.*



## TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

| COMPANY.                                         | NATURE OF BOND.                          | INT. DUE.     | OFF'D. ASK'D. | SHS. OFF'D. ASK'D. |
|--------------------------------------------------|------------------------------------------|---------------|---------------|--------------------|
| Alabama and Tennessee.....                       | 1st mortgage, convertible in 1872        | 7 1872        |               |                    |
| Baltimore and Ohio.....                          | Transferable. Taxed.....                 | 6 1885        | 79%           | 100 56 58          |
| Do do.....                                       | Coupons. Not Taxed.....                  | 6 1875        |               |                    |
| Do do.....                                       | " ".....                                 | 6 1880        |               |                    |
| Do do.....                                       | " ".....                                 | 7 1880        |               |                    |
| Do do.....                                       | " ".....                                 | 6 1885        | 98            | 50 35              |
| Bellefontaine and Indiana.....                   | 1st mortgage, convertible.....           | 6 1866        |               |                    |
| Buffalo and Penn. State Line.....                | 1st mortgage, not convertible.....       | 6 1866        |               |                    |
| Chicago and Rock Island.....                     | 1st mortgage, convertible.....           | 7 1870        | 91 98         | 90 92              |
| Chicago and Mississippi.....                     | 1st " ".....                             | 7 1862        |               |                    |
| Do do.....                                       | 2d " ".....                              | 7 1874        | 65            |                    |
| Chicago and Aurora.....                          | 1st " ".....                             | 7 1866        |               |                    |
| Cincinnati, Newcastle and Mich. Real Estate..... | " ".....                                 | 7 1859        | 100           | 100 107            |
| Cleveland, Columbus, and Cin'ti.....             | 1st mortgage, convertible.....           | 7 1859        |               |                    |
| Do do.....                                       | do No mortgage, convertible.....         | 7 1855        |               |                    |
| Cleveland and Mahoning.....                      | " ".....                                 | 7 1861        |               |                    |
| Cleveland, Paines, & Ashtabula.....              | 1st mortgage.....                        | 7 1861        | 100           |                    |
| Do do.....                                       | do 2d " not convertible.....             | 7 1861        |               |                    |
| Cleveland and Pittsburgh.....                    | 1st " convertible.....                   | 7 1860        |               | 65 70              |
| Do do.....                                       | 2d sec. convertible.....                 | 7 1873        |               |                    |
| Cleveland and Toledo.....                        | 1st mort. not conv. '73.....             | 7 1863        | 93 94         | 50 73 75           |
| Cleveland, Zanesville, & Cin'ti.....             | " " till 1855.....                       | 7 1867        |               | 67 78              |
| Cincinnati, Hamilton & Dayton.....               | 1st mortgage.....                        | 7 1880        | 85 86         |                    |
| Do do.....                                       | 2d mortgage.....                         | 8 1880        | 42 43         |                    |
| Cincinnati, N. C. & Michigan.....                | 1st mortgage, real estate, conv.....     | 10 5 & 10 y's |               | 19 14              |
| Cincinnati Western.....                          | " ".....                                 | 8 1880        | 40            | 30 32              |
| Cincinnati, Wil. and Zanesville.....             | 2d " ".....                              | 7 1863        | 65 66         |                    |
| Cincinnati, Ind. and Chicago.....                | " ".....                                 | 7 1863        |               |                    |
| Cincinnati and Chicago.....                      | Real Estate.....                         | 8 1859        | 36 40         | 10 12              |
| Columbus, Piqua and Indiana.....                 | 1st mortgage, convertible.....           | 7 1862        | 75 76         | 7 7                |
| Do do.....                                       | do 2d " ".....                           | 7 1862        | 60 61         |                    |
| Columbus and Xenia.....                          | 1st mortgage, convertible.....           | 7 1859        | 80            | 85 88              |
| Covington and Lexington.....                     | 2d " " till 1862.....                    | 7 1863        | 65 67         | 50 24 22           |
| Do do.....                                       | Income.....                              | 6 1863        | 62 65         | 50 20 22           |
| Dayton and Michigan.....                         | 1st " ".....                             | 7 1867        |               | 20 23              |
| Dayton and Western.....                          | 1st " ".....                             | 7 1862        |               |                    |
| Dayton, Xenia and Belpre.....                    | 1st " ".....                             | 7 1864        | 26 30         |                    |
| Eaton and Hamilton.....                          | 1st mortgage.....                        | 7 1862        | 60            | 25 30 35           |
| Erie and Kalamazoo.....                          | 1st mort. guaranty Mich. S. R. R.....    | 7 1862        |               |                    |
| Evansville and Crawfordsville.....               | 1st mortgage.....                        | 7 1862        | 80 81         |                    |
| Fort Wayne and Southern.....                     | " ".....                                 | 7 1862        |               | 12 14              |
| Franklin and Warren.....                         | " ".....                                 | 7 1862        |               |                    |
| Galena and Chicago Union.....                    | Pledge of second section, conv.....      | 10 1853-6     | 92%           | 100 117 118        |
| Hillsboro and Cincinnati.....                    | 1st mort.....                            | 7 1878        | 60 61         | 50 25 27           |
| Illinois Central.....                            | 1st mortgage, not convertible.....       | 6 1875        | 78 89         | 100 95 96          |
| Do do.....                                       | Freeland.....                            | 6 1875        | 88 89         |                    |
| Indiana Central.....                             | 1st mortgage, convertible.....           | 7 1866        | 63 75         | 50 45 50           |
| Do do.....                                       | " ".....                                 | 10 1857       | 80            | 50                 |
| Indianapolis and Bellefontaine.....              | 1st " ".....                             | 7 1860-1      | 75 80         | 25 50 50           |
| Indianapolis and Cincinnati.....                 | 2d mortgage.....                         | 7 1861        | 75 80         | 50 60 63           |
| Indianapolis and Lafayette.....                  | " ".....                                 | 7 1861        |               |                    |
| Jeffersonville.....                              | 1st " not ".....                         | 7 1861        |               | 36                 |
| Junction (Ohio).....                             | 1st " ".....                             | 7 1867        |               | 50 11 15           |
| Do Indiana.....                                  | Real Estate.....                         | 10 1867       | 70 72         | 10 15              |
| La Crosse and Milwaukee.....                     | " ".....                                 | 8 1864        | 77 82         | 100                |
| Little Miami.....                                | 1st mortgage, not convertible.....       | 6 1883        | 78 80         | 50 92 95           |
| Do do.....                                       | " " till 1855.....                       | 7 1861        |               |                    |
| Louisville and Nashville.....                    | " " unconvertible.....                   | 7 1853        |               | 100                |
| Lyons', Iowa, Central.....                       | 1st mortgage, convertible.....           | 7 1873        |               |                    |
| Mad River and Lake Erie.....                     | 1st mortgage, convertible till 1855..... | 7 1855-6      | 75            | 50 22 25           |
| Do do.....                                       | 2d " ".....                              | 7 1866        | 70 75         |                    |
| Do do.....                                       | Dividend.....                            | 7 1860        |               |                    |
| Madison and Indianapolis.....                    | 1st mortgage, convert. after 1853.....   | 6 1861        |               | 50                 |
| Marietta and Cincinnati.....                     | Domestic Bonds.....                      | 6 1861        |               | 50 20 25           |
| Do do.....                                       | United 2d " ".....                       | 6 1861        |               | 50                 |
| Hillsboro and Cincinnati.....                    | 1st " ".....                             | 6 1861        |               |                    |
| Maysville and Big Sandy.....                     | " ".....                                 | 6 1873        |               |                    |
| Maysville and Lexington.....                     | 1st mortgage, convertible.....           | 6 1873        |               | 50                 |
| Memphis and Charleston.....                      | " ".....                                 | 6 1873        |               |                    |
| Michigan Central.....                            | No mortgage, convertible.....            | 8 1860        | 97            | 96 97              |
| Do do.....                                       | " ".....                                 | 8 1855-6      |               |                    |
| Do do.....                                       | " " not ".....                           | 8 1857-8      |               |                    |
| Michigan Southern.....                           | 1st " ".....                             | 7 1860-90     | 100           | 93 95              |
| Milwaukee and Mississippi.....                   | 1st " ".....                             | 8 1862        |               | 81                 |
| Mobile and Ohio.....                             | 1st mortgage 6s. 1884.....               | 8 1862        |               |                    |
| Nashville and Chattanooga.....                   | " ".....                                 | 8 1862        |               |                    |
| New Albany and Salem.....                        | mortgage on 1st section.....             | 10 1858-62    |               | 50 14 18           |
| Do do.....                                       | on other sec. con.....                   | 8 1864-75     |               |                    |
| New Castle and Richmond.....                     | 1st " convertible.....                   | 6 1873        |               |                    |
| New York Central.....                            | " ".....                                 | 7 1867        | 100 102       | 91 92              |
| New York and Erie.....                           | 1st mortgage, not convertible.....       | 7 1862        | 77 79         | 100 12 54          |
| Do do.....                                       | 2d " convertible.....                    | 7 1863        | 95 97         |                    |
| Northern Cross, Ill.....                         | 1st mortgage, convertible.....           | 8 1873        |               |                    |
| Northern Indiana.....                            | 1st " not convertible.....               | 7 1861        | 98            |                    |
| Do do.....                                       | 1st " ".....                             | 8 1868        | 53 84         | 91 93              |
| Do do.....                                       | Construction Bonds.....                  | 7 1861        |               |                    |
| Ohio Central.....                                | 1st mortgage, convertible.....           | 7 1861        | 61            | 15 20              |
| Ohio and Mississippi.....                        | 2d " ".....                              | 7 1860        | 48 51         | 5 8                |
| Ohio and Indiana.....                            | 1st " ".....                             | 7 1867        |               | 50 14 18           |
| Ohio and Pennsylvania.....                       | " ".....                                 | 7 1865        |               |                    |
| Do do.....                                       | Income. No mortgage, convert.....        | 7 1872        |               | 50                 |
| Pacific, Mo.....                                 | 2nd issue.....                           | 7 1872        | 107 108       | 105 105            |
| Panama.....                                      | " ".....                                 | 7 1873        |               |                    |
| Parkersburg (or N. western Va.).....             | Guar. City of Balt.....                  | 7 1873        |               |                    |
| Pennsylvania.....                                | 1st mortgage, convert. till 1860.....    | 6 1880        |               | 50 43 40           |
| Peru and Indianapolis.....                       | 1st " ".....                             | 7 1862        |               | 25 20 27           |
| Rock River Valley Union.....                     | 1st " ".....                             | 7 1872        |               |                    |
| Sandusky and Mansfield.....                      | 1st " ".....                             | 7 1860        |               |                    |
| Do do.....                                       | 2d " ".....                              | 10 1853-7     |               |                    |
| Scioto and Hocking Valley.....                   | 1st " income.....                        | 7 1861        | 50 51         | 50 50 51           |
| Southwestern, Tennessee.....                     | " ".....                                 | 7 1861        |               |                    |
| Springfield and Columbus.....                    | " ".....                                 | 7 1861        |               |                    |
| Steubenville and Indiana.....                    | 1st mortgage, convertible.....           | 7 1865        |               |                    |
| Terre Haute and Alton.....                       | 1st " ".....                             | 8 1862-72     | 91 93         |                    |
| Do do.....                                       | 2d " ".....                              | 8 1865        | 78 80         |                    |
| Terre Haute and Richmond.....                    | 1st " ".....                             | 6 1866        |               |                    |
| Oledo, Norwalk and Cleveland.....                | 1st " ".....                             | 7 1863        | 87 88         | 50                 |
| Do do.....                                       | 2d " ".....                              | 7 1863        |               |                    |
| Do do.....                                       | Guar. of C.....                          | 1883          |               |                    |

## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

|                              | INT.   | DUE.    | OFF'D. ASK'D |
|------------------------------|--------|---------|--------------|
| U. S. Loan.....              | 6 1856 | 103 105 |              |
| Do.....                      | 6 1862 | 112 112 |              |
| Do.....                      | 6 1867 | 117 120 |              |
| Do.....                      | 6 1868 | 118 120 |              |
| Do (Int. ceased July 1)..... | 5 1853 | 102     |              |
| Do Coupons.....              | 6 1862 | 118     |              |
| Do ".....                    | 6 1867 | 118     |              |
| Do ".....                    | 5 1853 | 101     |              |

## STATE.

|                           |           |         |    |
|---------------------------|-----------|---------|----|
| Alabama.....              | 5         |         |    |
| California.....           | 7 1870    | 86 88   |    |
| Arkansas.....             | 6         |         | 96 |
| Georgia.....              | 6         | 98      | 99 |
| Do.....                   | 7         |         |    |
| Illinois Canal Bonds..... | 1860      |         |    |
| Do do registered.....     | 1860      |         |    |
| Do do.....                | 1847      |         |    |
| Do do registered.....     | 1847      |         |    |
| Do do Internal Impt.....  | 6 1847    | 102 104 |    |
| Do Interest do.....       |           | 72 75   |    |
| Indiana.....              | 5         | 81 83   |    |
| Do.....                   | 2 1/2     | 54 55   |    |
| Do Canal Loan.....        | 6         |         |    |
| Do do preferred.....      | 5         |         |    |
| Do special preferred..... | 5         |         |    |
| Kentucky, 30 years.....   | 6 1871    | 102     |    |
| Do 16 years.....          | 6         | 102     |    |
| Do large bonds.....       | 6 1869-72 | 100 104 |    |
| Do.....                   | 5         |         |    |
| Louisiana.....            | 6         | 89 91   |    |
| Michigan.....             | 6         | 97 98   |    |
| Missouri.....             | 6         | 86 90   |    |
| New York.....             | 6 1873    | 116 117 |    |
| North Carolina.....       | 6         | 99 100  |    |
| Ohio.....                 | 6 1856    | 102     |    |
| Do.....                   | 6 1869    | 105 108 |    |
| Do.....                   | 6 1870    | 118 119 |    |
| Do.....                   | 6 1875    | 118 119 |    |
| Do.....                   | 5 1855    |         |    |
| Pennsylvania.....         | 6         |         |    |
| Do.....                   | 5 1870    | 89      |    |
| Tennessee, long loan..... | 6 1890    | 93 97   |    |
| Do Coupons.....           | 5         | 81 83   |    |
| Virginia Coupons.....     | 6 1886    | 94 97   |    |

## CITY SECURITIES.

|                     |            |           |  |
|---------------------|------------|-----------|--|
| Albany.....         | 6 1871-81  | 99 100    |  |
| Allegheny.....      | 6 1875-7   | 80        |  |
| Baltimore.....      | 6 1870-90  | 99 100    |  |
| Do.....             | 5 1865     |           |  |
| Boston Bonds.....   | 4 1/2 1860 |           |  |
| Chicago.....        | 6 1873-7   | 92 95     |  |
| Cleveland.....      | 6 1879     | 103 105   |  |
| Cincinnati.....     | 6 1860-92  | 96 96 1/2 |  |
| Do.....             | 6 1897     |           |  |
| Do.....             | 5 1864     |           |  |
| Do W. W.....        | 6 1865     |           |  |
| Covington.....      | 6 1857     | 80 80     |  |
| Jeffersonville..... | 6 1890     | 70        |  |
| Louisville.....     | 6 1880     | 86 87     |  |
| Memphis.....        | 6 1882     | 72 74     |  |
| New York.....       | 7 1837     | 100 100   |  |
| Do.....             | 5 1858-00  | 96 99     |  |
| Do.....             | 5 1870-5   | 97 100    |  |
| Do.....             | 5 1890     |           |  |
| Philadelphia.....   | 6 1876-90  | 94 95     |  |
| Pittsburgh.....     | 6 1869-78  | 81 82     |  |
| Do coupons.....     | 6 1883     |           |  |
| Racine.....         | 7 1873     | 85 86     |  |
| St. Louis.....      | 6 1870     | 85 86     |  |
| Wheeling.....       | 6 1873     | 70 73     |  |

## COUNTY BONDS.

|                                                               |          |       |  |
|---------------------------------------------------------------|----------|-------|--|
| Bourbon, Ky.....                                              | 6 1881   | 77 80 |  |
| Darke, O.....                                                 | 7        |       |  |
| Fairfield, O.....                                             | 7 1862   |       |  |
| Fayette, Ky.....                                              | 6 1881-3 | 75 75 |  |
| Hancock Co.....                                               | 7        | 70 75 |  |
| Mason, Ky.....                                                | 6 1881   | 73 76 |  |
| McCracken Co. Ky., endorsed by New Orleans and Ohio R. R..... | 6 1866   | 80 85 |  |
| St. Louis.....                                                | 7 1871   |       |  |

## BANKS.

|                                       |        |  |  |
|---------------------------------------|--------|--|--|
| American Exchange Bank, N. Y.....     | 118    |  |  |
| Ohio Life Insurance and Trust Co..... | 98 100 |  |  |
| Washington Insurance Co.....          | 84 85  |  |  |
| City Insurance.....                   | 70     |  |  |
| Cincinnati Insurance Co.....          | 84     |  |  |
| National Insurance.....               | 75 80  |  |  |

## KENTUCKY.

|                                    |         |  |  |
|------------------------------------|---------|--|--|
| Bank of Kentucky and Branches..... |         |  |  |
| Northern, and Branches.....        | 100     |  |  |
| Southern, and Branches.....        |         |  |  |
| Bank of Louisville.....            | 93      |  |  |
| Kentucky Trust Co.....             |         |  |  |
| Farmers' Bank of Kentucky.....     | 105 108 |  |  |
| Commercial Bank of Kentucky.....   |         |  |  |

## INDIANA.

|                              |  |  |  |
|------------------------------|--|--|--|
| State Bank and Branches..... |  |  |  |
| TENNESSEE.....               |  |  |  |
| State Bank and Branches..... |  |  |  |
| Union.....                   |  |  |  |
| Planters.....                |  |  |  |

## LAND WARRANTS.

|                                  |        |        |
|----------------------------------|--------|--------|
| 160 acre warrants, per acre..... | Buy's  | Sell's |
| 80 acre warrants.....            | \$1 10 |        |
| 40 acre warrants.....            |        |        |



| RATES OF EXCHANGE. |            |               |               |       |
|--------------------|------------|---------------|---------------|-------|
| Place.             | Time.      | Buy'g.        | Sell'g.       |       |
| On New York.....   | Sight..... | $\frac{1}{2}$ | $\frac{1}{2}$ | prem. |
| Boston.....        | Sight..... | $\frac{1}{2}$ | $\frac{1}{2}$ | prem. |
| Philadelphia.....  | Sight..... | $\frac{1}{2}$ | $\frac{1}{2}$ | prem. |
| Baltimore.....     | Sight..... | $\frac{1}{2}$ | $\frac{1}{2}$ | prem. |
| New Orleans.....   | Sight..... | $\frac{1}{2}$ | $\frac{1}{2}$ | prem  |
| England.....       |            | 108           | 109           |       |

| SPECIE.                 |         |   |         |
|-------------------------|---------|---|---------|
| GOLD.                   |         |   |         |
| California clean, p oz. | \$17 60 | @ | \$17 65 |
| Spanish Doubloons       | 16 75   | @ | 16 75   |
| Patriot Doubloons       | 15 75   | @ | 15 80   |
| Sovereigns              | 4 86    | @ | 4 88    |
| Guineas                 | 5 00    | @ | 5 00    |
| American, new           | 1 00    | @ | 1 00    |
| American, old           | 1 06    | @ | 1 06    |
| Portuguese              | 1 00    | @ | 1 00    |

| SILVER.                |    |                    |                    |
|------------------------|----|--------------------|--------------------|
| American Dollars.....  | 1  | 03 $\frac{1}{2}$ @ | 1 04               |
| American Halves.....   | 1  | 03 $\frac{1}{2}$ @ | 1 04               |
| Spanish Dollars.....   | 1  | 14 @               | 1 14               |
| Spanish Quarters.....  | 1  | 00 @               | 1 01               |
| Mexican Dollars.....   | 1  | 05 $\frac{1}{2}$ @ | 1 05 $\frac{1}{2}$ |
| Five Franc pieces..... | 97 | @                  | 97 $\frac{1}{2}$   |

\* The standard English value attributed to the Sovereign is \$4.44, in London. This with exchange added, say from 9½ to 11 per cent., gives the American value of the English coin.

**CINCINNATI STOCK SALES,**  
AT THE STOCK BOARD,  
**MERCHANTS' EXCHANGE,**  
**AND AT PRIVATE SALE.**

BY HEWSON & HOLMES.

**BONDS.**

|                                        |                                                                   |             |
|----------------------------------------|-------------------------------------------------------------------|-------------|
| For the week ending November 21, 1855. |                                                                   |             |
| \$18,000                               | Cov'g. & Lex. R. R. Co., 10 per cent. Income Bonds .....          | 62 ½        |
| 2,000                                  | Cin., Wil. & Zanes. R. R. Co., 2d Mort. 7 per cent. Bonds .....   | 65          |
| 5,000                                  | Mad River & Lake Erie R. R. Co., 2d Mort. 7 per cent. Bonds ..... | 70          |
| 1,000                                  | Cincinnati & Western R. R. Co., 8 per cent. Real Estate Bds. .... | 40 (& Int.) |
| 3,000                                  | Little Miami R. R. Co., 6 per cent. Bonds, due in 1853 .....      | 78 "        |
| 12,000                                 | Ohio & Miss. R. R. Co., 7 per cent. 2d Mort. Bonds .....          | 48          |
| 2,000                                  | Cov'g. & Lex. R. R. Co., 7 per cent. 2d Mort. Bonds .....         | 65          |
| 570                                    | Little Miami Dividend Scrip. ....                                 | 85          |

## STOCKS.

|     |                            |            |
|-----|----------------------------|------------|
| 400 | Shares Ohio & Miss.....    | 5 (& Int.) |
| 90  | " " " " " " " " " "        | 5 1/2 "    |
| 25  | " Cin., Ham. & Dayton..... | 67 1/2 "   |
| 150 | " Indianapolis & Cin.....  | 60         |
| 50  | " " " " " " " " " "        | 60         |
| 20  | " Cin. & Chicao.....       | 10         |
| 40  | " Little Miami.....        | 90         |
| 200 | " Peru & Indianapolis..... | 20         |
| 80  | " Greenville & Miami.....  | 10         |
| 36  | " Dayton & Western.....    | 20         |
| 60  | " Eaton & Hamilton.....    | 30         |

## LONDON QUOTATIONS

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

R. F. SATTERTHWAITE, STOCK BROKER, LON.

Nov. 2, 1855.

|                                                                    |     |   |     |
|--------------------------------------------------------------------|-----|---|-----|
| Belvidere, Del., guar. 1st mort., conv. ....                       | —   | @ | 87  |
| Chicago & Rock Island, Mort., conv. 1858, ..                       | —   | " | "   |
| Cin. Ham & Dayton, 2d mort., .....                                 | 81  | " | 80  |
| Erie, 3d Mortgage, 1883, .....                                     | 83  | " | 85  |
| "    Sinking Fund, .....                                           | 78  | " | 80  |
| Galena & Chicago, .....                                            | —   | " | 87  |
| Grand Trunk (Canada) Debenture, .....                              | 87  | " | 89  |
| Great Western " conv., .....                                       | 110 | " | 114 |
| " non-conv., .....                                                 | 100 | " | 102 |
| Illinois Central, 1st Mort., 7's, .....                            | 73  | " | 74  |
| "    "    with option 70 per cent.<br>shares till Jan. 1858, ..... | 73  | " | 75  |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill.<br>Cent., .....         | 83½ | " | —   |
| Little Miami 1st Mort. not conv. 6's, .....                        | —   | " | —   |
| Marietta and Cincinnati, 1st Mort., .....                          | —   | " | 80  |
| Michigan Central, conv., 8's, .....                                | 91  | " | 93  |
| N. York Central. No Mort. Not conv., ..                            | 92  | " | 95  |
| "    conv., .....                                                  | 83  | " | 85  |
| Ohio and Mississippi, 1st Mort., .....                             | —   | " | —   |
| Ohio and Pennsylvania, Income 1872, .....                          | —   | " | 81  |
| Panama. No mort. conv. 1866, .....                                 | —   | " | 98  |
| Pennsylvania, 1st Mort., conv., .....                              | 87  | " | 89  |
| "    Sterling, 2d Mort., .....                                     | 90  | " | 91  |
| Stenbenville and Ind., 2d Mort., .....                             | —   | " | —   |

☞ The quotations given are sterling quotations. The American value is to be obtained by adding on exchange generally about 10 per cent.

### Monetary and Commercial.

The monetary world of England and America have both been agitated in a very extraordinary manner, by *fears and rumors coming from the opposite side*. The raising of the rate of interest by the Bank of England, in order to avoid the continental drain of gold, so alarmed our American financiers, in Wall street, as to occasion a positive panic in the stockdealers there. This panic was, on the whole, absolutely ridiculous, for the United States were never so prosperous, never so abundant in money, food, or staple articles of export; in one word, were never so entirely beyond all influence of panics or fear of scarcity. This was soon seen, and in the last ten days there has been a most decided reaction, stocks have risen and are firmer.

On the other hand, England has been agitated with the yet more ridiculous fear of a war with America! Such a one would undoubtedly be greatly injurious to all commercial interests; but it cannot happen without a folly on the part of rulers, on both sides, which we cannot, without further evidence, suppose to exist. In Cincinnati there never has been a period of more quiet, at this season, in money matters, or of greater general prosperity. Price of produce are high, the sale of manufactures active, and the general course of trade sound.

GRESHAM HOUSE, OLD BROAD STREET,  
London, November 2d, 1855.

We have had a quiet week, so far as regards our market for both home and foreign securities. From Australia we have received £442,000, and by the West India steamer £174,000, mostly in gold. Part of this is finding its way to the Bank of England, and a portion has gone to France. There are always heavy payments on the 4th of the month, and in preparation for these, money has been in considerable demand, with, however, a decided increase in confidence, arising mainly from a conviction that the general trade of the country is in a healthy state.

Consols, quoted last Friday at 88½, have fluctuated a little during the week, having risen on favorable accounts from the East, and the belief in a more liberal estimate of the yield of our harvest; while their price, in common with other securities, have latterly been depressed by the prevailing rumors of a misunderstanding having arisen between the United States and our own Government. The comments of the public press, coupled with the statements and insinuations of interested parties, have increased the fears to which this untoward circumstance has given rise in the minds of the public. There is, nevertheless, a strong and general conviction entertained, that the good sense of the people in both countries will prevent ulterior measures on the part of either Government, and that the material interests of both countries are so interwoven by the commercial relations as to offer a bar to any rash measures. Consols were as high as 88½ and are to-day 87½ @ %.

With perhaps a little more disposition to sell, we do not quote Commercial securities much lower. The chief transactions were in Illinois Central Railway Securities. Construction Bonds at 72@73, and Freedland Bonds at 74@74½. New York Central, 6 per cent, at 85, and 7 per cent at 73 and 74. Erie, 3d mortgage, at 83. Pennsylvania, 1st mortgage, at 88. Pennsylvania State 5 per cent. Stocks are offered at 73@75. Maryland Sterling Bonds at 91@93.

Cotton has been in much better inquiry, and prices are fully one-fourth per cent. above those of last Friday. Sugar has been uprecedently active, and prices range 4@5 higher per cent. than they did last week.

Corn has declined. It has been calculated, considering the much greater breadth of land under wheat cultivation, although the yield per acre may be one-tenth less than usual, that the whole crop is larger than the average, so much so that this country may probably only want "half the usual supply from abroad."

NEW YORK STOCK SALES, NOV. 17.

|         |                              |     |
|---------|------------------------------|-----|
| \$3,000 | New York 6's                 | 102 |
| 5,000   | Ind. State 5's               | 81½ |
| 4,000   | Virginia 6's                 | 94½ |
| 1,000   | Erie 2d mort.                | 95  |
| 1,000   | " Conv. bds. '62.            | 77½ |
| 6,000   | No. Ind. 1st Mt. Gosh. Line. | 83  |
| 9,000   | Illinois Cent.               | 78½ |
| 1,000   | N. Y. Cent. 6's.             | 85  |
| 200     | Shares Mich. Cent.           | 96  |
| 160     | " Mich. So. and No. Ind.     | 93½ |
| 280     | " Ill. Cent.                 | 95½ |

|              |    |                           |      |
|--------------|----|---------------------------|------|
| 250          | 44 | Clev. & Pitts.....        | 65   |
| 1,000        | 46 | Clev. and Tel.....        | 73½  |
| 200          | 44 | Chicago & R. I. R. R..... | 90½  |
| 10           | 44 | Milwaukee & Miss.....     | 81   |
| 450          | 44 | Erie R. R.....            | 52½  |
| 55           | 44 | Panama.....               | 103½ |
| Market firm. |    |                           |      |

THE MEMPHIS & OHIO R. R. — In August, 1854, the work was begun in earnest, and about 2,000 hands were constantly engaged at it, until May 1, 1855. By that time the first thirty miles were ready for the iron, and the State Commissioner, Col. R. G. Payne, was invited down to Memphis to inspect it. He came down, examined it, promptly gave the required certificates, upon which the Governor as promptly issued to the company \$300,000 in State Bonds. The tracklayers commenced laying down the iron on the 1st of June; and by the 1st of Nov. thirty miles were ironed and the cars making daily trips for freight and passengers. On the 1st of October ten miles more were inspected and received by the State Commissioner, and the Governor has just issued to the company \$100,000 more in State Bonds. By the middle of December ten miles more will be ready for the iron; and the cars, by that time, will run beyond Mason's, the depot in Tipton county, thirty-five miles from Memphis! In a short time the road will be at Brownsville, fifty-six miles. It is thus seen, that, within sixteen months this road has forty miles graded, thirty miles ironed, and in three or four months more, — in twenty months at most, from the day the first earth was thrown—fifty-six miles will be in running daily, with a full equipment of locomotives, cars, etc., etc!

The line recently surveyed from Brownsville to Paris, give 34 miles "air line."

Earnings.

PENNSYLVANIA RAILROAD.—Monthly Statement of the Receipts of the Road for the month ending October 31, 1855:

|                                                                |                |
|----------------------------------------------------------------|----------------|
| For October.....                                               | \$474,134 56   |
| Same month last year.....                                      | 233,236 64     |
| Increase.....                                                  | \$140,897 88   |
| Receipts from January 1st, 1855, to<br>November 1st, 1855..... | \$3,469,924 22 |
| Same period last year.....                                     | 3,058,729 97   |
| Increase.....                                                  | \$411,194 25   |

MICHIGAN CENTRAL RAILROAD. — The following is a comparative statement of the earnings of this road for the month ending October 31st, 1855, and 1854:

|                    | 1855.               | 1854                | Increase.          |
|--------------------|---------------------|---------------------|--------------------|
| Passengers.....    | \$204,285 65        | \$167,178 40        | \$37,107 25        |
| Freights.....      | 116,032 47          | 95,845 38           | 20,187 09          |
| Miscellaneous....  | 10,430 93           | 4,655 23            | 5,775 70           |
| <b>Total .....</b> | <b>\$330,749 05</b> | <b>\$267,679 01</b> | <b>\$63,070 04</b> |

LA CROSSE AND MILWAUKEE R. R.—The Sparta (Monroe Co.) *Watchman* of the 7th inst. says:

The engineers are now making a survey of this road from La Crosse, the Western terminus of the road, to the point where it is to cross the dividing ridge.

The *Watchman* urges the people of Monroe County to lend the enterprise a helping hand.

DETROIT AND MILWAUKEE RAILWAY.—The earnings of the Detroit and Milwaukee Railway, for the month of October, 1855, are as follows:

|                                        |        |                   |
|----------------------------------------|--------|-------------------|
| Passengers.....                        | 7..... | \$9,531 30        |
| Freight.....                           |        | 7,944 47          |
| Mail and miscellaneous.....            |        | 377 04            |
| <b>Total.....</b>                      |        | <b>17,355 81</b>  |
| <b>Earnings for October, 1854.....</b> |        | <b>11,313 71</b>  |
| <b>Increase.....</b>                   |        | <b>\$6,042 10</b> |



**KNOXVILLE & LEXINGTON R. R.**—They are now busy locating this road from Knoxville on. The work of grading is to be commenced during the present month with a large force. The first thirty miles being under contract.

**THE MOBILE & OHIO R. R.**—This work steadily and surely progresses, and last week completed another step of its journey to the Ohio. The *Mobile Advertiser* says:—"After Monday, 29th inst., the cars—freight and passenger trains—will run regularly to the Marion Station, ten miles to the northward of the Okitibbee Station, the late temporary resting place of the iron horse. The Marion Station is one hundred and forty miles from the city, and as the track laying is going forward rapidly, it is hoped and expected that on the 1st day of December the trains will be running to Lauderdale Springs, fourteen miles beyond Marion, and one hundred and fifty-four from Mobile."

The Legislature has just passed a bill granting important aid to the bridges on the Mobile and Ohio Railroad; also to the bridge on the Central Mississippi and Tennessee Railroad, across the Forkeddeer.

### THE MINING MAGAZINE.

IN the *Mining Magazine* for November is commenced the re-publication of the new and invaluable English work of WILLIAM TURRAN, on "The Manufacture, Theoretically and Practically Considered," with all the large Plates of Furnaces and Machinery in operation. It is the only treatise on the subject, except Musket's papers, originally published half a century ago. The contents embrace descriptive details of the Ores, Fuels, and Fluxes, employed; the preliminary operation of Calcination; the Blast, Refining, Puddling, and Bailing Furnaces, Engines and Machinery; and the various processes in union; statements of quantities of material; period of time and amount of power consumed in the successive stages; cost of raising materials, and manufacturing crude and finished Iron; and analytical researches into the causes affecting the Economy of Fuel in Blast Furnaces, &c., &c.

There are Twenty-Three Plates, all of which will be executed in the best style, and accompany the Text.

The *Mining Magazine* is published monthly at \$5.00 a year. Each number contains from one hundred to one hundred and twenty pages, octavo, and is devoted to every department of Mining and Metallurgy. The fifth volume ends December 1855. The work of Turrar would be completed in about twelve numbers of the Magazine. Its cost alone is nearly triple the subscription price of the Magazine.

In the December number commences the re-publication of the great work of Posson on COAL MINING, translated from the French expressly for the Magazine, with all the splendid plates which accompany that work. It is one of the most important publications in regard to Practical Coal Mining knowledge. Its contents are briefly as follows: Chapter 1.—Practical Remarks on the Geology of Coal Regions—Formation of Hanging Strata—Search for Coal by Boring, &c. Chapter 2.—Means of Exploring Coal Strata by Levels—Shafts—their Working, Supporting, Restraining Water, &c. Chapter 3.—Natural and Artificial Ventilation—Illumination—Burning of Coal Mines, &c. Chapter 4.—Mining Work and its Processes, with Examples from numerous districts, Belgium, France, Germany, England, &c. Chapter 5.—Hauling and Hoisting in Horizontal and Inclined Galleries, in Shafts, on the surface, &c.—Means of Ascending and Descending Mines, &c. Chapter 6.—Drainage—Restraining Surface Water by means of Dams, &c.—also Pumps—Connecting Rods—Motive Machines, &c. Chapter 7.—Mining Economy—Materials—Tools—Work and Wages of Laborers—Estimated Costs of Mines, &c. Chapter 8.—Explanations of operations of Surveying in relation to Coal Mines, &c., &c.

The Plates are very numerous and expensive, all of which will be executed in the best lithographic style for the Magazine.

In adding these new features to the Magazine, the aim of the Editor is, to place within the reach of the Mining and Manufacturing Interests, at a cheap price, recent and most valuable information which is of such a costly nature as not to warrant its re-publication in this country as an independent enterprise. The price of Posson's work in the French is nearly \$40.00.

The Magazine also embraces in its pages translations from the German, on the "Dressing of Ores in the Hartz Mines;" and we have in course of preparation, with all the plates, the most valuable Treatise on Metallurgy, by KELL, two parts of which have been issued in Germany. In its usual contents, which will not be diminished, it comprises informations of Mines, Mining Operations, &c., in every part of the country.

This Circular is respectfully addressed to you with the hope that you will encourage this important enterprise by your patronage. Early attention is necessary to secure the series, as we shall not stereotype, or print more copies of the Magazine than are required by Subscribers. Address

W. J. TENNEY,  
Editor Mining Magazine,  
98 Broadway, New York.

### To Railroad Contractors.

SEALED proposals will be received at the office of the Edgfield and Kentucky Railroad Co. in Nashville, Tenn., until Saturday, Dec. 15th, 1855, for the construction of their Road, from Nashville to the Kentucky Line where it meets the Henderson & Nashville Railroad to Henderson on the Ohio River. The E. & K. Railroad is about forty-eight miles long, through a country well adapted to railroad construction, and the work will be divided into sections of about one mile each, which may be bid for separately or the whole road included in one proposition. Proposals may also be made to build the thirty miles only next to Nashville, either by single section or in one contract.

There are on the road, one tunnel half a mile long, heavy rock work at various points, and two large bridges. Maps, profiles and plans will be ready for examination by Dec. 1st, and any information may be obtained by addressing the undersigned.

SAM'L WATSON, President.

A. ANDERSON, Chief Engineer.

Nashville, Tenn., Oct. 20, 1855.

Nov 1.

### Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

## New Railroad Map.

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

Plain Lithograph,.....\$0.50

Colored Boundaries,.....0.75

Backed with muslin and varnished ready

for moulding,.....1.50

Mounted,.....2.00

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers. Railroad Companies wishing a large number to circulate with reports, or to supply their various offices, will be allowed a corresponding discount. Orders addressed to

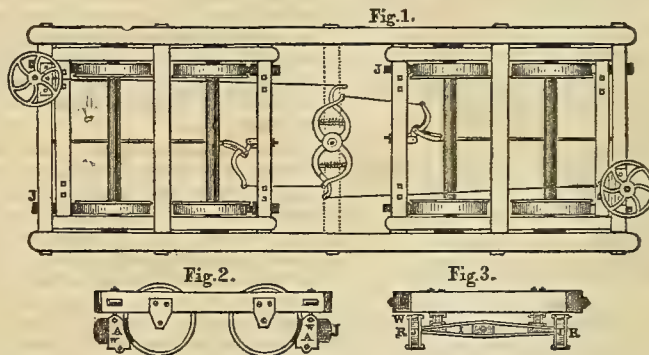
T. WRIGHTSON & CO.,

Publishers R. R. Record,

167 Walnut St.,  
Cincinnati, Ohio.

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (w) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate, on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

We, the undersigned, hereby certify that we have seen the operation of a Railroad Car Brake, now in use on the Rutland and Burlington Railroad, invented by Mr. Lucius Paige, of Cavendish, in the State of Vermont, and are satisfied that it is the cheapest (taking into account repairs, &c.) and the best thing of the kind now in use.

JOHN S. DUNLAP, Supt. R. & B. R. R.

M. G. LITCHFIELD, Master Mechanic R. & B. R. R.

JOSIAH BOWTELL, Conductor R. & B. R. R.

A. W. WHITCOMB, Conductor R. & B. R. R.

SILAS L. PIERCE, Engineer R. & B. R. R.

E. WHITCOMB, Conductor R. & B. R. R.

P. R. DOWNER, Conductor R. & B. R. R.

J. F. STINSON, Road Master R. & B. R. R.

DANIEL ARMS, Conductor R. & B. R. R.

We, the undersigned, hereby certify that the Car Brake illustrated upon the preceding page, is now in use on the Lowell Railroad, and having made a satisfactory trial thereof, most fully accord to it a great superiority over any other Brake in use, embodying especially the advantages above set forth, and recommend it as being in all respects superior to any other.

June 15, 1855.

C. B. KING, Master of Machinery.

ENOCH HALE, Car Builder.

JARVIS CUSHING, Car Builder.

E. D. COLBY, Car Builder.

E. F. BAILEY, Car Builder.

WILLIAM SNELL, Car Builder.

EDWARD FOWLE, Car Builder.

WM. H. PETTINGELL, Depot Master.

DAVID R. KIRBY, Conductor.

P. A. PEAKSON, Machinist.

The names above signed are those of practical men in our machinery department. Mr. King being widely known for his skill and good judgement, and any addition from me appears to be superfluous—but at the request of the patentee or inventor, I can and do cheerfully say, that the mechanical features of his plan are such as make the Brake superior to most, and second to none with which I am acquainted.

Nov. 1.

WM. PARKER, Agent B. & L. R. R. Co.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
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**DWELLINGS, STORES, WAREHOUSES,**  
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 and their Cargos,

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*Railroad Depots and Station Houses,*  
 at current rates. **L. A. OSTROM,**  
 ug. 16. No. 6 West Third Street, Cincinnati.

**RAILROAD IRON.**

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via. Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY.** Quebec & Kingston, Canada.  
**BERRY & WALKER.** Liverpool, England.  
 Kingston, C. W., Sept. 15, 1855.



**T. N. RAFFINGTON,**  
 GENERAL ENGRAVER,

North East Corner Fourth and Walnut Streets, over Ohio Savings Bank,  
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No. 25 West Third Street, Cincinnati.

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 South-East corner of Main and Fourth Sts., Cin.

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**LITHOGRAPHERS & ENGRAVERS,**

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**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
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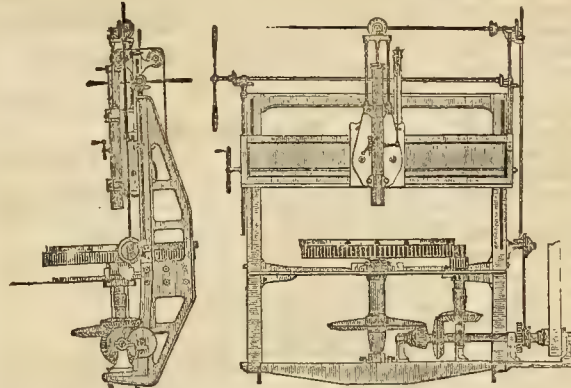
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**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

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From 40 inches, to 12 feet.

**PLANING MACHINES**

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**ENGINEERS' & MACHINISTS' TOOLS,**

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AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

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Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**London Agency for Sale of Bonds &c.**

Messrs LANCE & Co., are making more generally known in England, the great advantages of American securities for investment.

During the present year Messrs Lance and Co. have disposed of a large amount of American and Canadian Railway Bonds, and are fast extending their connections. They will be happy to correspond with parties having good American Securities for sale.

Messrs LANCE & Co. have had experience in the purchase and shipment of Iron, and offer their cooperation to those about to negotiate for the disposal of Bonds and the purchase of Rails.

P. S. Presidents of Railway Companies are requested to favor Messrs L. & Co. with Exhibits or Reports of their Companies as published.

10, Regent street, Waterloo Place, London,  
 October, 1855. nov, 15-6m.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines, 25 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS,** President.

Also, for sale, two Twenty Horse Power Stationary Engines.  
 Aug. 9 41

**THE SCHENCK MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**

No. 163 GREENWICH STREET,  
**NEW-YORK,**

**KEEPS** constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

**A. L. ACKERMAN, PROPRIETOR**

Aug. 9 1y

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WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

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Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

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**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—

are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-ly

**IRON BOILER FLUES.****PASCAL IRON WORKS.****MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,

PHILADELPHIA.

**PERU & INDIANAPOLIS R. R.**

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers.

Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.

L. N. ANDREWS, Gen. Frtght Ag't.

Indianapolis, October 1, 1855.

**THE KENTUCKY MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

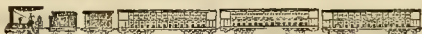
The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,

President of the Board.

ly26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

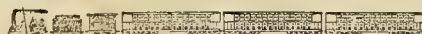
The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1855.

Sept. 29-tf.

**Terre Haute & Richmond R. R.****Summer Arrangement.****TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 24 hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

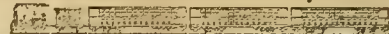
TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

**Cincinnati, Hamilton, & Dayton R. R.****SUMMER ARRANGEMENT.**

COMMENCING MONDAY, JUNE 25th, 1855.

Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN.**

Indianapolis Express, at 5.30 A. M., for Indianapolis, Terre Haute, Lafayette, Peru, Michigan City, Chicago, Galena, Rock Island, St. Louis and the West. This train stops at all way stations.

**SECOND TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Clyde Cleveland, Sandusky, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, Washington, Lima, Delphos and Fort Wayne, and at Sandusky with Train for Toledo and Chicago, arriving at Chicago at 2.00 o'clock A. M. This Train stops only at Hamilton, Middletown, Dayton, Springfield, Urbana, Bellefontaine, Tiffin, Norwalk and Grafton.

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation, at 8.00 A. M., for Dayton, Springfield, Sandusky, Cleveland and way stations; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore, &c.; same train connects at Sandusky with steamer Bay City for Detroit; and at Dayton with train for Troy, Piqua, &c.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M., stops at all way stations; connects at Dayton for Troy, Piqua, &c. and at Hamilton for Eaton, Richmond, Indianapolis, Chicago, &c.

**SIXTH TRAIN.**

Night Express at 5 P. M.—for Dayton, Springfield, Sandusky and way stations. Cleveland, Dunkirk, Buffalo, Albany, New York and Boston; connects at Forest for Crestline, Pittsburgh, Philadelphia, Baltimore and at Hamilton for Eaton, Richmond, &c.

**SEVENTH TRAIN.**

Hamilton Accommodation at 6.30 P. M. This train stops at all regular stations, as at flag stations on signal or notice to the conductor.

Baggage checked to Cleveland, Dunkirk, Buffalo and Pittsburgh.

RETURNING.—Trains leave Dayton as follows: 5.00 & 9.45 A. M., 1.25 and 6.00 P. M.

LEAVE RICHMOND 7.00 A. M., 10.30 A. M., & 6.30 P. M.

LEAVE HAMILTON 6.00, 6.10 and 9.00 A. M.; 12.25, 2.15, 7.15 and 8.15 P. M.

For further information or tickets, apply at the ticket office corner of Front street and Broadway, under the Spencer House, or at the ticket office on Walnut street, next door to the Gibson House, or at the Sixth Street depot.

HENRY O. AMES, Sup't.

The Omnibus Line will call for passengers by leaving their names at the Office.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,

AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.

TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 6.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....50

" Terre Haute.....50

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

Feb. 8-ly

WARRINGTON & MERRITT



## Baltimore &amp; Ohio Railroad.



330 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freight are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
Through Tickets from all Parts of the West,  
ARK NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

**AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED**  
For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**  
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.  
WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.  
Je. 8†

TO LOUISVILLE  
IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,  
Chief Engineer and Superintendent.

Omni-buses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-buses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only. W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

aug.2.

STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of STEREOTYPING, including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

**AT THE FOUNDRY PRICES.**  
C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

1855. New Arrangement, 1855  
COMMENCING MONDAY, JULY 16.LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East,  
LAID WITH HEAVY TIRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy Tiron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route. CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¾ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30½ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburgh in.....   | 14 "      |
| To Philadelphia in..... | 30½ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## Covington and Lexington Railroad.

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terrehaute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at Lexington at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryansville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.30 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

Freight Trains will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

## RATES OF FARE.

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthiana.....  | 2 00   |

## FOR THROUGH TICKETS

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.  
P. W. STRADER, Gen'l Agent.

The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw. Madison and Scott, Covington.

## CLAYTON &amp; GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road. nov.15\*

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

## VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad, Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.  
Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,  
Cincinnati, Nov. 1, 1855. Agent.

W. G. ATKINSON,  
Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared. mar-ly



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

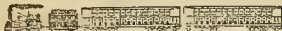
Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNYS &amp; PECK,

Je. 8-1f

Louisville, Ky.

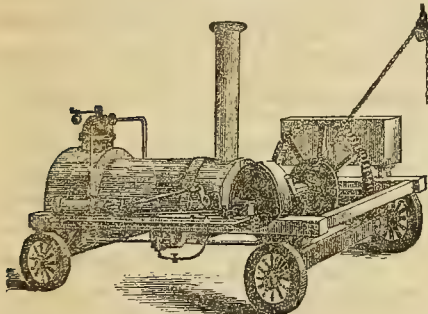
**Norris' Locomotive Works.****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

Richard Norris & Son.

**A. L. ARCHAMBAULT'S PORTABLE STEAM****HOISTING & PUMPING ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving,

Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug 2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

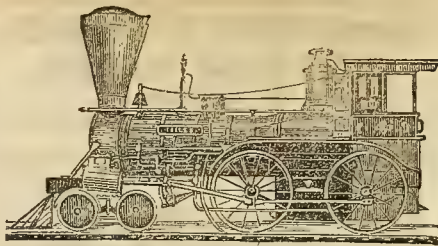
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MRS. DURAND, FULTON and TILTON.

Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c. feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's Improvements in Axle Boxes are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.****T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING, CINCINNATI, O.

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery.**

THIRD STREET, (west of Burnet House.)

**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames'

Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car,

Conductor's, Signal, Switch, Stoker and other

Lanterns. Drawbridge and cross Road

signal Lights; Gum Packing and

Hose, assorted Car Trimmings,

Enamelled head and seat

Linings, Plated and

White Metal Letters.

—ALSO—

Machinists' Tools,

particularly adapted to

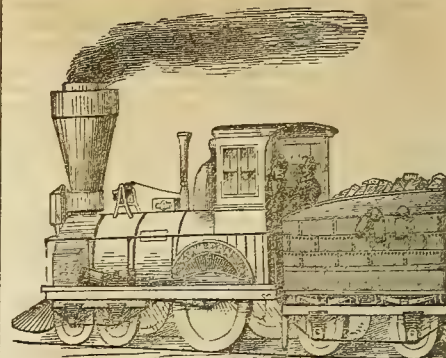
Railroad Work, Mill Work,

Shafting and Shop outfits, Punch-

ing and Shearing Machines, for Boiler

Work; Planers, Lathes, Drills, Portable

Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes. jyt3.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. & F. Wason, Springfield, Massachusetts.

**Railroad Car Findings****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Casting Fit**

**Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS****Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue. Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russia, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

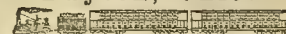
Late Davenport &amp; Bridges, Car Manufacturers.

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.

to 66

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

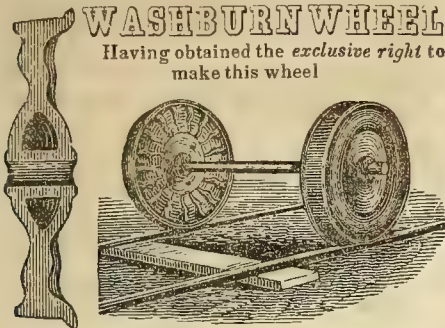
Dayton, Jan 24th. 1853.

Jan 25+



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



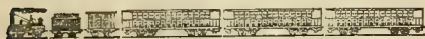
**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16th

JOSEPH DAVENPORT.

### S. C. THOMSON & CO.,

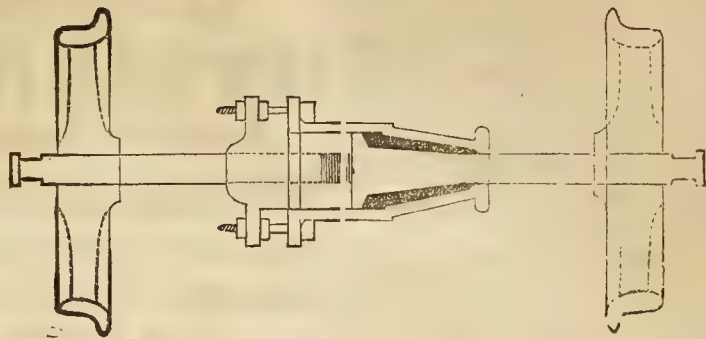
MANUFACTURERS OF

## PATENT PAD LOCKS,

For Railroad Switches, Merchandise Cars Stores, Cemeteries, Iron Safes, &c.,

Cor. Railroad Avenue and Market st.,  
n.124 NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads; the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not often more than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

July 10th

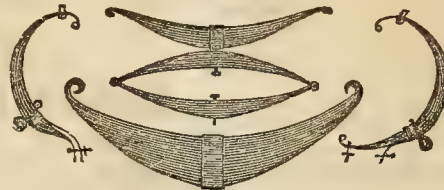
**SAMUEL L. DENNEY,**

Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

## MCDANEL & HORNER,

## LOCOMOTIVE AND CAR MOTIVE SPRING



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to.

McDANEL & HORNER.

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

NORRIS BROTHERS, Locomotive Builders, Philad.

A. C. GRAY, Prest. New Castle Manuf. Co.

U. WELLS, R. R. Car Manuf. Petersburg, Va.

I. R. TRIMBLE, Supt. Philad. R.R. Co.

May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.

EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.

THOMAS DOUGHERTY, Master Mach. do.

THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.

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PATENT

## PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

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53 and 55 Walnut Street.

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For the purchase of all articles required by Railway Companies, on Commission.

Office, No. 80, South Fourth-street, near Walnut,  
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### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,

Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "

Charles H. Fisher, Esq. "

Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.

Pinckney Huger, Esq., Pres't N.E.R.R. Co. "

Oct. 13-14.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.  
OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. POSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—DEAR SIR—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES, For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES,

For Railway Wheels. Railway Axles and Springs, SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

## FRIED. KRUPP,

Essen Rhenish Prussia.

Represented solely in the United States by

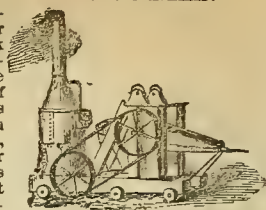
## THOMAS PROSSER & SON,

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PLATT STREET, New York!

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



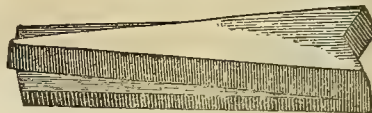
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Guages

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

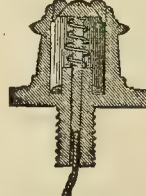
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



OIL  
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For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
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OHIO, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
MAPS OF EVERY DESCRIPTION.



# Texas Western Railroad.

## Railroad Record—Extra.

CINCINNATI, NOVEMBER 19, 1855.

### SOUTHERN PACIFIC RAILROAD. LETTER OF HON. T. BUTLER KING.

We publish to-day a reprint of the letter of Hon. T. Butler King on the subject of the Southern Pacific Railroad to certain capitalists of New York. The letter was published in the New York Herald of October 30th, and was designed to interest the New York capitalists by furnishing them information with regard to this project.

This subject is no new one with Mr. King. It is one which has occupied his attention for years, and on which he is perhaps better informed than any other person in the country. As early as the date of the first virtual settlement of California, and even before the vast riches of that State were generally known, Mr. King had opportunities rarely enjoyed for collecting information with regard to California and the territory that separates it from the eastern States. And since that period has been prominent among those who have been endeavoring to present the subject of a Pacific Railroad in its true light before the country.

In his letter, Mr. King argues the folly of building three roads to the Pacific, even if the three were practicable. One is sufficient for our present wants and that one should be the best and cheapest. That one, and that *only* one, he contends, is the southern route on the parallel of 32 degrees. Next to this, but next by a great disparity, is the extreme northern route on the parallel of 48½ degrees and running up to 49.

He examines in a masterly manner the question of latitude and climate. Assuming 40 degrees to be about the middle latitude of the country he argues that, to reach the latitude of 49, we must travel one degree of latitude further from the middle course and a thousand miles of distance more than on the southern route. The expenditure of money and time, in both construction and operation would therefore be tremendously increased on the northern route. That consideration of climate in favor of the southern route are even greater than these. Mr. King next examines the characteristics of the route and the probabilities of emigration along the line, the business to be done, including revenue that may reasonably be expected, and the basis of a credit to raise the necessary funds for the prosecution of the work, and finally the *national reasons* for the construction of a Railroad to the Pacific. In this last argument Mr. King will be cordially joined by every one who knows anything of the difficulties attending the early history of California. California has been to us a distant colony, reached only by the seaboard, and suffering all the inconveniences and annoyances that usually attend the settlement of distant colonies in general. The construction of a Railroad to connect the Atlantic and Pacific, will make California and Oregon—the whole Pacific slope—in reali-

ty a part of our country, in such a sense as no other measure can. It will make their people our people, and bind us together with links of iron as well as strengthen the ties of consanguinity and social intercourse.

### THE PACIFIC RAILROAD.

Letter of Hon. Thomas Butler King to Certain New York Capitalists, in Behalf of the Texas and Gadsden Country Route—Advantages of the Route—Commercial and Political Views, etc.

NEW YORK, Oct. 24, 1855.

GENTLEMEN:—Having had the pleasure of communicating to you verbally my views on the subject of a railroad to the Pacific Ocean, I now beg leave to submit them in a more connected and tangible form. The people of the United States, on both sides of the continent, have become so thoroughly convinced of the importance of this great work, as a national necessity, I shall not take into consideration that branch of the subject, further than it may be developed in the course of my observations. That point being conceded, the next that presents itself is the proper route for the road, its practicability, and the results which will probably flow from its construction.

The Legislation of Congress, exhibiting a most remarkable want of practical statesmanship, has indicated and proposed to provide for the construction of three lines. Now, nothing can be more certain than that if the broad expanse of country extending to the Pacific were a perfect plain, it would be unwise to attempt, at such vast expense, the construction of three roads at the same time, when it is clear that one will be quite sufficient for all intercommunication between the Atlantic and Pacific States for many years to come. Therefore, any attempt to force upon the money market three such gigantic and competing enterprises at the same time, would, beyond doubt, cause the utter failure of all. It has, therefore, been a matter of surprise among all thinking, practical men, that Congress has not sought out, as the sole object of its legislation, that line for this great enterprise which, under existing circumstances, combines in its favor not only the greatest pecuniary reward to those who undertake it, but also the most important and pressing national considerations. It is not quite certain that the surveys and examinations which have been made, prove more than one route to be practicable. That is the extreme southern line, running along and near the parallel of north latitude 32°, through the State of Texas, and the territory acquired from Mexico under the Gadsden Treaty, to the junction of the Gila and Colorado, and thence through California to the Pacific.

It is claimed, however, that the extreme northern route is practicable, extending from Chicago through the States of Illinois and Iowa, thence around the Great Bend of the Missouri, and crossing the depression in the Rocky Mountains at or near the point of the Hudson's Bay Company's portage, to the waters of the Columbia river; thence across the great basin and the Cascade Mountains to Puget's Sound, or descending the gorges of the Columbia for many hundred miles through the Territory of Oregon to the mouth of that river. This route, if practicable, after leaving the settled portions of Iowa, passes through a country without inhabitants a distance of some two thousand miles to Puget's Sound, and strikes the Pacific near a thousand miles, by the course of navigation, north of San Francisco, our great commercial em-

porium on that ocean. If nature had imposed no mountain ranges to obstruct the work upon this route, its extreme northern latitude and the drifting snows of winter on the extensive prairies through which it passes, would present obstacles quite insurmountable. In addition to these objections, its great length, added to the distance from New York to its eastern terminus, would render it almost, and probably quite, useless as a channel of commerce. To communicate from San Francisco to Puget's Sound—its western terminus—would require at least half as much time and expense as would be required on the southern line from San Francisco to New York. It would, therefore, seem to be unwise, while the preservation of the union of the Atlantic and Pacific States appears to depend, in a great degree, on a railway connection between them, to delay the execution of the work in vain attempts to bring forward this extreme northern route as a rival of its southern competitor. The fortieth parallel of north latitude, the position of this city, is believed to be near the center of population of the free States; so that 32 degrees, or the southern route, is not as great a deviation from that supposed centre as the northern line in latitude 48½ degrees. Therefore, if our efforts were solely directed with a view to ascertain the best route to the Pacific for the Northern States, the line of 32 degrees would unquestionably be selected without reference to the South.

As the examinations of the government engineers condemn all the intermediate routes, I shall pass them without comment, and proceed to consider that on the parallel of 32 degrees, through Texas and the country recently acquired under the Gadsden Treaty, to the junction of the Gila and Colorado, and thence through California to the Pacific. The charter of the Texas Western Railroad Company permits the work to commence at a point on the eastern boundary of that State, which will afford the greatest facilities for connecting it with the railways which are extending in that direction from St. Louis, Cairo, and Memphis, through Arkansas, by way of Little Rock and Fulton, from Vicksburg, Louisiana, to Shreveport, and from New Orleans, by the Opelousa Railroad, thus bringing the system of Railways throughout the Union, north and south, by converging lines, to that point on the eastern border of Texas and connecting them with the line under consideration to the Pacific. These railroads are all in a state of progress, and the means provided for their ultimate completion, which cannot be delayed beyond a very few years, and connecting as they do with the railways in the southern, middle, and northern states, their completion will open a railway communication from this and all other Atlantic cities, more than half the distance across the continent.

From the eastern boundary of Texas to the Pacific, on the route surveyed by Col A. B. Gray, the Engineer of the Texas Western Railroad Co., the distance is 1,621 miles, which will be very much diminished by the grade of the road, making it not far from twice the length of the Illinois Central Railroad. This is supposing the Road to strike the Pacific at the nearest point. If it be extended to San Francisco, the distance will be increased some five hundred miles.

The climate on this line is mild and salubrious, being free from snow and ice in winter, and the diseases caused in southern latitudes by miasm in summer. Uniting, as it will in a healthy region, with the railroads leading north and east, a transit over it at



all seasons of the year, will be safe and pleasant.

The lands reserved in Texas to encourage the construction of this work through that State, are not surpassed in fertility by any other portion of the Union. In fact, they produce in greater quantity and perfection than they are produced elsewhere, all the crops cultivated in the northern and southern states. It is beyond doubt the best grazing country on the continent. Wheat is produced in greater quantity to the acre, and a much heavier and more flinty grain, than is grown in the North-Western States. All the other serial grains in equal proportion. The product of cotton per acre is larger and of better quality, than in any other portion of the southern country. Edible roots of all kinds are produced in the greatest perfection. Sugar and molasses may be produced with facility.

Texas grants to the company making this road, in compliance with the terms of the charter, sixteen sections of these lands, or ten thousand two hundred and forty acres, for every mile of road constructed. If, after the work shall be completed, these lands prove to be worth five dollars an acre, they will produce a fund of \$51,400 per mile, or a reliable basis for a credit to that amount.

It is proper to remark that the emigration to this country will be composed of classes of persons in all respects different from those spread over the Government lands in the north-west. The Territories of the United States in which the government lands lie, do not produce cotton—the great staple of the South; nor does the government own any valuable bodies of cotton lands. These lands of Texas present the only great unimproved field for the culture of cotton now remaining to be occupied on the continent. Therefore, when this road shall be completed, the emigration to Texas, from all the slaveholding States, must be very large, and of persons who would not, under any circumstances, emigrate to the north-west. Therefore, the grants of land made by Congress to encourage the construction of railroads for military services can have no influence on the price of the lands which Texas offers in aid of the construction of this work.

As we proceed west of the Rio Grande into the country acquired under the Gadsden treaty, we come into a district which is considered to be almost as rich in gold as California, possessing also very rich silver and copper mines. The valleys and plains are very similar to those of California, and will probably be as productive. It is known that previous to the revolution in Mexico, which expelled the Spanish authority, this country sustained a large population, with numerous flocks of sheep, and herds of cattle and horses. It is, therefore, not a desert waste, as has been represented. The surveys which have been made through Texas, and from the Rio Grande to the Pacific, show that although there are some spots without timber, it can be procured without any great expense in transportation, in sufficient quantity to insure the completion of the work without greatly augmented cost. These surveys also show that water is found, or can be procured at small expense, in sufficient quantity on the whole route.

This line through Texas, which may at comparatively small expense, be connected with one or more of the ports in that State on the Gulf coast, presents great commercial advantages which cannot be claimed by the northern route. The voyage to the coast of

Texas, while it is nearly as direct as the course of any of the lines of railway converging towards the proposed route on 32 deg., accomplishes more than one half the distance to the Pacific, and leaves not more than sixteen hundred miles to be overcome by railway, so that while the passengers, mails, and packages by express would be accommodated with the facilities of railroad conveyance from all parts of the Union, the cargoes of package goods made up in this city, of foreign importations and domestic manufactures, destined for the Pacific and intermediate markets, would undoubtedly be sent by sea to the southern and Gulf ports, and thence by railway. The cost of freight from New York to San Francisco, by way of the Isthmus of Panama, is now about one hundred and twenty-five dollars a ton. If the railroad was completed from the coast of Texas, the expense would not exceed one half that sum, or about sixty dollars per ton. It is believed that this reduced cost, and the saving of time, would throw the entire transportation to the Pacific coast upon this line. Transportation by the express lines, by way of the Isthmus of Panama, to California, for all packages weighing over eighteen pounds to the square foot, is at the rate of seven hundred dollars per ton, and more for packages of less weight to the square foot; and yet, I have been informed that there have been times when the steamers on the other side could not convey away the merchandize as fast as it was delivered at Panama. The usual freights from New York around Cape Horn, I believe, have been in clipper ships, about \$40, and in ordinary vessels about twenty-five dollars per ton, to San Francisco. This contrast in the price of freights is a strong illustration of the great importance of saving time in commercial transactions, and of the laws of trade, which compel all merchants engaged in the same line of business to do that which, as a general rule, any one may accomplish with certainty, celerity, and profit. It is this competition which throws such vast quantities of freight, almost without regard to expense, into the steamers from Europe. No merchant can afford to wait, if he can avoid it, twenty or thirty days longer than his neighbor for the receipt of supplies of seasonable goods; therefore, the same necessity of competition which is now forcing such large quantities of merchandize through the expensive transportation in steamers, and across the Isthmus to California, will force the trade to our Pacific coast across the continent on the railway, whenever it shall be completed. In addition to this, it will readily be perceived that passengers to and from the Pacific will travel by the railway, and consequently the package goods must take the same route.

This course of trade would be facilitated and rendered more certain by the return freights, which steamers and sailing vessels bound for Southern and Gulf ports with package goods and passengers would be sure to receive.

With a view to form some idea of what may probably be the gross receipts of a railroad to the Pacific States, it may be useful to state as near as practicable what has been the emigration to and from them from 1849 to 1854 inclusive. It is believed that the population of California, Oregon, and Washington amounts to over three hundred thousand. It is also believed that an average of at least twenty-five thousand persons per annum have returned from those States for the six years above stated, making an aggregate

of one hundred and fifty thousand who have traveled both ways. The expense of the journey to the Pacific, including the price of passage, time and incidental costs and charges, has been estimated as high as three hundred dollars for each person. It will, therefore, not be considered extravagant if we take two-thirds of that sum—or two hundred dollars—as the average. This will give for the one hundred and fifty thousand who have made the passage to and from the Pacific, an expense of sixty millions of dollars. If we adopt the same rule with respect to the three hundred thousand who have remained, we have the same result—sixty millions of dollars—making an aggregate of one hundred and twenty millions for the six years, or twenty millions per annum, as the probable cost of this movement.

I have no data upon which to found a calculation of the amount paid for freight, and insurance of merchandize and gold dust, but the sum must be very large.

If we extend our view across the Pacific, we find that this railway, connected with steamers on that ocean, will reduce the time of passage from New York to Shanghai in China, to about twenty-five to twenty-eight days, and to Sidney, in Australia, to from thirty to thirty-four days. Intelligence across the continent by telegraph and thence to Shanghai in steamers, would be conveyed in eighteen to twenty-one days, and to Sidney in about twenty-two to twenty-eight days. The variation of time on the Pacific is given for the purpose of indicating what is supposed to be the average speed of steamers at present—say two hundred and fifty miles a day, and what is believed it may be hereafter—three hundred miles a day.

The distance between San Diego, in California, and Sidney, is fifteen hundred miles less than it is from the latter place to Panama; and at the present average speed of steamers on the Pacific—two hundred and fifty miles a day—passengers from Sidney would arrive at San Diego in six days less time than they would at Panama, and that being quite sufficient for the passage by railway to New York, passengers and gold dust would arrive here by way of San Diego in about the same time that they would reach Panama from Sidney. It is, therefore, supposed that all passengers and intelligence, and probably no small amount of light package goods from Europe to Australia, would be conveyed over this line, and that all passengers, gold dust, and intelligence from Australia for the Atlantic States and Europe, will take the same route. It will thus be seen that the completion of this work will virtually change the relative positions of the commercial nations of the world—that China, Japan, and Australia will become, in fact, commercially what they are now geographically, west from our Atlantic as well as our Pacific states, and that instead of being for all purposes of navigation on the west of both Europe and Asia, we should be placed almost midway between those two continents, and that all communications from the western nations of the former and the eastern nations of the latter, must necessarily pass over this line.

It has been remarked that it is believed Sonora is as rich in gold as California. The reasons why the gold mines of that portion of Mexico have not been worked, are because, since the overthrow of the Spanish rule, the government of Mexico have not protected the inhabitants, nor has it allowed them to carry arms to protect themselves against the incur-



sions of the Indians; consequently, all the northern and mining portions of the country have become almost depopulated, the people having been driven into the central and southern portions of the State to the rich valleys of the rivers, where, alone, they could in safety obtain subsistence. The completion of this work will throw open this rich district of country to American enterprise, and bring our people and commercial cities into direct communication with the three great gold fields of the world—Sonora, California, and Australia.

The emigration to the Pacific coast, notwithstanding the expense of time, money and exposure of health, on the various lines over which it has passed, may be regarded as a sufficient evidence of what it would be if a cheap, easy, and rapid line of communication were established, and new fields open to American labor. A gold field presents no attractions for the laborer, except the treasure which he collects; hence it is, that as soon as he has obtained an amount which meets his moderate views of competence, he returns to the home he has left. Consequently it will be found that the tide of travel upon this national line of communication will flow with nearly equal force in both directions. The preponderance will, doubtless, be towards the Pacific; but this will be composed chiefly of agriculturists, and persons engaged in trade—not of miners.

If we suppose these increased inducements will carry over the road two hundred thousand persons per annum, each way—a little more than double the amount of emigration to California, since 1849—at an average price of eighty dollars each, or five cents a mile on sixteen hundred miles of road, we have a gross receipt of sixteen millions of dollars. If we add to this five millions for government transportation of mails, munitions of war, troops, etc., and five millions for package goods to, and gold from the Pacific, way freights, and way passengers, we have a gross receipt of twenty-six millions, on an estimated expenditure of about forty-five to fifty millions, for the construction of the road from the eastern line of Texas to the nearest port on the Pacific; and probably not exceeding fifty-five millions to San Francisco. The fertile lands in Texas, through which the road will pass, will cause the items of way passengers and freights very soon to become large, and undoubtedly exceed the estimate.

The basis of a credit to raise the necessary means for the construction of this work may be stated—first, a grant from Texas of ten thousand two hundred and forty acres of land for every mile of road constructed within her limits, or for the supposed distance on the route indicated in the law, from the eastern line of the State, opposite the town of Shreveport, in Louisiana, to El Paso—seven hundred and eighty-three miles of road—7,017,920 acres, at five dollars an acre, would be \$35,089,600. An estimated engagement on the part of the United States to pay for a term of at least fifteen years, five millions per annum, for the transportation of mails, troops, and munitions of war, together with an appropriation of land through New Mexico acquired under the Gadsden treaty, of at least twenty sections to the mile, for a distance of 578 miles—or 7,338,400 acres. Also a proposed grant from Congress to the State of California, of thirty sections, or nineteen thousand two hundred acres of land per mile, for the distance the road may be constructed in that State.

It is true that Congress has not yet made these grants; but as they were, I believe, embraced in the bill which became very near becoming a law at the last session, they will, no doubt, be made at the next session of Congress. The grant, if made to California, may be so located as to be quite as valuable per acre as the lands in Texas.

It is of the utmost importance that the legislation of Congress shall be so framed as to authorize a contract to pay at least five millions per annum during a period of not less than fifteen years, for the transportation of the mails, troops, munitions of war, etc., etc., which, coupled with the grants of land above mentioned, would, I should suppose, form a sufficient basis of credit to enable the company to hold their lands until the completion of the entire work should render them valuable. It cannot be supposed that Congress, in view of the great national objects to be attained, can refuse or neglect to do this.

This road, if made at all, must be made by a private company. It cannot be made by the government—first, because Texas owns one-half of the line; and, second, because works of this nature managed by government cost about four times as much as in the hands of a company; and this increased expenditure would, as has been proved in other cases, render the annual appropriations by Congress so uncertain and fluctuating, that the country would, after ruinous delays, be likely to become disgusted, and cause a sale, or a total abandonment of the enterprise. Whatever Congress does to aid this work, must be accomplished in one single act, making grants, which, becoming contracts, cannot be repealed.

The condition of the Pacific states, situated as they are, near six thousand miles, by the present route of travel, from the seat of the federal government and our commercial marts on the Atlantic, the time, risk, and expense of passing from one to the other, the time required for official communications, causing injurious delays in the execution of the law, have already produced so many evils, it is said the people of those States are seriously considering the expediency of providing a government for themselves, and it may readily be imagined that if steps be not speedily taken to form a more direct, rapid, and easy communication with them, these causes will only augment their discontent and render the threatened movement more easy and certain. If these dangers threaten in times of peace, what would be the condition of those States in time of war with a naval power? With our communications, circuitous as they are, with the Pacific coast entirely cut off, and a hostile squadron in quiet possession of all the harbors of California, Oregon and Washington, it would be impossible to give our fellow citizens their aid by sending supplies across the plains; and if we sent them men without supplies, they would only assist in consuming their scanty subsistence. The enemy would be on the water, and secure from any assault which they would be able to make upon him; but in a situation to render them perfectly powerless, to cut off their exports and imports of every description, and so deprive them of the comforts, and probably the necessities of life, as to drive them, in self-defence, to make the best terms he might be inclined to offer. A government once formed there by those people, under such circumstances, and with the proffered friendship and protection of the enemy, would not be likely thereafter to seek

a reunion with the Atlantic States. A war even with Spain, feeble as she confessedly is, would, beyond doubt, cut off our communications in steamers by way of the Isthmus with the Pacific coast, and deprive our Atlantic States of the supply of gold from California, or render its receipt so dilatory, hazardous, and uncertain, as greatly to affect the commercial prosperity of our whole country. It is probably not hazarding too much to say that the injury thus sustained in one year, would be greater than the entire cost of a railroad from the Mississippi to the Pacific; and that most of it would be inflicted upon the city of New York.

Therefore, in whatever light we regard this work, it presses itself upon our consideration as indispensable to the safety and prosperity of the Union. If speedily completed, it secures to us all the advantages we now possess, and opens new and vast fields of enterprise. If long delayed, the Pacific States threaten to form a government for themselves. If war comes before its completion, they will probably be driven to that course; so that every consideration connected with our position as a people, urges the completion of this work. That it offers a profitable investment of capital, there cannot, it seems to me, be a doubt.

Amidst all the uncertainty which prevailed eighteen months ago respecting the various routes proposed, and the apparent disposition of Congress to coquette with them all, without having ascertained the practicability of either, so as to know which to choose, there appeared but little probability that the government would adopt any efficient measures to encourage and aid the construction of this work. Feeling perfectly certain, as I did at that time, that there was not, within the territories of the United States, a practicable route for a railroad to the Pacific, I consented to unite myself with a company, for the purpose of lending my efforts to cause a survey to be made on the line of 32 degrees, in Texas, and from El Paso, through Chihuahua and Sonora, to the junction of the Gila and Colorado; and thence through California to the Pacific. In the progress of this survey the Gadsden treaty was formed, and the district of country through which it was progressing acquired from Mexico.

Mr. Andrew B. Gray, surveyor of the boundary commission under the treaty of Guadalupe, was the engineer employed in this service. The line surveyed by him runs some distance south of the Gila, and is much more favorable in all respects than the one surveyed by government along the southern bank of that river. In short, the route surveyed by Mr. Gray presents, over all others, such decided advantages with respect to easy grades, timber and water, and the general fertility and vast mineral and metallic wealth of the country through which it passes, that the line of the Gila, which is the only other known practicable route, cannot for a moment compete with it.

I am, with great respect, your most obedient servant,

T. BUTLER KING.

To Mathew Morgan, Wm. B. Astor, George Griswold, William S. Wetmore, Stewart Brown, Moses Taylor, Erastus Corning and E. D. Morgan.

Five dollars per share only can be called for on the stock of this company. If after the first issue of stock more money is required, it is done by issuing more stock at a higher



## Atlantic and Pacific Railroad.

A copy of the San Diego *Herald* has been received since our last Extra was issued. This furnishes the pleasing intelligence, that the people of Southern California are alive to their commercial interests.

Under a charter granted by their own State, an instrumental survey has been made from San Diego to Fort Yuma, at the junction of the Gila and Colorado rivers. This survey corroborates the truth of the prediction of Col. Gray. "A more favorable pass" in the coast range of mountains has been found, on the direct route, shortening the distance from eighty to one hundred miles between these two points, as surveyed by the way of the San Gorgonia Pass, and entirely obviating the necessity of tunnels and inclined planes, as suggested by Col. Gray.

This will have an important bearing upon the welfare of that city, securing to it wealth, commerce, and improvement, as the happy result arising from the great commercial transactions of all civilized nations springing up in their midst.

From the San Diego Herald.

We noticed in our last issue, that the San Diego and Gila Railroad Company were then engaged in completing their reconnaissance between this point and the Rio Colorado. Since that issue they have completed that portion of the route lying between tide water and Capitan Grande's. And although we have not yet been favored with the official report of Mr. Rosenbach, (the engineer under whose superintendence the same was conducted,) yet we have learned sufficient to make public the result of their labors. Upon the organization of this company last winter, the route between this and the mouth of the Rio Gila, was divided into three sections. The first embracing the mountainous section lying between the San Diego River and the Desert. This, on account of Lieut. Williamson's report of impracticability, was immediately surveyed, and the actual level of the surface taken. It was found to present at no place a greater grade than one hundred and seven feet and three inches to the mile, (and this for only three miles,) which may be reduced one-half by the ordinary excavations and fillings. The second section was that embracing the desert west of the Colorado. This, upon actual survey, is found not only to be free from the obstacles occasioned by floating sand hills, but to present almost a perfect level from the base of the mountains at Carrissa Creek to the Rio Colorado. The third and last section is that which has just been completed, lying between the commencement of the first section (at Capt. Grande's) and tide-water in our harbor. Having heretofore noticed the practicability of the first two sections surveyed, when they were completed, we now give the result of the last, which finishes the survey between this point and Rio Gila.

The first nine miles of the survey shows an average grade of a few inches over six feet to the mile—no single mile being over eleven feet. For the next three miles and a half there is an average grade of about fifty feet, (the highest grade of a single mile being fifty-six feet seven inches,) which is through the

canon, into the Cajon valley. Through this valley to the Cajon house, a distance of nearly seven miles, and from thence to Capitan Grande's, some twelve miles farther, the grade differs but little from that of the first nine miles farther. Thus settling forever the practicability of this route for railroad facilities. The transit and level has passed over every foot of this road, and no doubt can be entertained but that the exact grade is reported.

Few roads can be built within the State of California, over ground possessing so many advantages as this route; the whole distance is of an easy grade, requiring but few excavations or fillings—the middle or mountainous section passes through the finest timbered portion of our country, and from which all timber required for the use of the road can be supplied; water in abundance can easily be procured at every station where it may be needed.

The San Diego and Gila Railroad Company have demonstrated (what by many was thought heretofore, doubtful,) that a good road exists from this to the mouth of the Gila. Having settled the question of practicability, we hope they will push forward with the same commendable zeal that has thus far actuated them, until the road is completed, and we have the steam car passing between this and the river.

It is the opening link, on this coast, of that great line that must wed the Atlantic with the Pacific Ocean.

The Southern line may be looked upon as a fixed fact. From every portion of the country where we find the question seriously discussed, it is conceded that this is the only route that can be built upon for many years to come. It presents every advantage in climate, distance and grade. Already, Louisiana, Mississippi, Arkansas, Tennessee, Illinois and Missouri are stretching out their lines to meet the eastern terminus, then let not the west be idle. But aside from the great national highway, this company have every inducement to speedily complete the road. *The present prices paid for the transportation of Government stores to Fort Yuma, at the mouth of the Gila, will pay annually five per cent of the actual cost of the construction of the road;* and this must inevitably pass over this line. In addition, it is well known that a good wagon road exists from Salt Lake Valley to the Colorado, and upon the completion of this road, every thing intended for that section of the country will pass through San Diego. We believe the Company see and feel what is their own interest, and will permit no unnecessary delay in putting their road under contract, and pushing the same on to completion.

## FROM THE GADSDEN PURCHASE.

## SOUTHERN PACIFIC RAILROAD ROUTE.

El Paso, Sept. 9, 1855.

The following interesting letter from the New York *Tribune* of the 15th of October, will be read with satisfaction. It presents the fact of a new and more favorable route than any one heretofore discovered, and brings to light the existence of greater and more valuable agricultural and mineral resources of the country west of the Rio Grande.

Our valley has been lately increased in its temporary population by the arrival of two government parties: one commanded by Maj.

Sprague, who arrived here some time since, having left Captain Pope on the Llano Estacado, where he is carrying on his operations for boring for Artesian wells. The other party is that of the Pacific Railroad survey, under the command of Lieutenant John G. Parke, of the Topographical Engineers. They arrived here on the 7th from Fort Fillmore, having reached the Mesilla Valley from the Gila Desert on August 13. The stay in the Mesilla Valley was in order to allow the mules to pull up, so as to make a quick return to the States *via* San Antonio: they leave here to-morrow. The party consists of Lieutenant John G. Parke, commanding; A. H. Campbell, railroad engineer; N. H. Hulton and G. G. Garner, assistants; H. Custar, topographer; and Dr. Antisell, physician and geologist. We learn that the party left San Diego, Cal., on May 26, arriving at Fort Yuma on June 7, and Mesilla Valley on August 13. The surveys made on the route between the Pinas villages and the Rio Grande were many and extensive, and much new country was explored for the first time. The valley of the San Pedro river has been carefully examined, and, contrary to the general belief, an easy road for the iron horse exists there. Instrumental surveys and barometric readings of the difficult portions of the route on this parallel (32°) were also made, which accounts for the long time spent in the survey of the desert country between the Colorado and the Rio Grande. The result of these accurate observations, we are told, are that by no other proposed route is there so easy a grade as by that examined by Lieut. Parke: even Whipple's has to pass over a road at least two thousand feet higher than that surveyed by the party. From the information gleaned from this source, it appears absolutely certain that there can be no road made with the same economy or facility as one from San Antonio, Texas, to here, and hence to San Diego or Los Angeles, California. It is the natural line for a railroad, as no mountain chain exist on this part of the continent, and the land is a gentle and gradual elevation from eastern Texas to the Rio Grande valley, and as gradual a slope to the Pacific from this river to the Colorado. Water also can be had at present at average distance of twenty-five miles on the route, and by sinking into the clay subsoils ordinary wells can be made to supply all the demands. We learn also that Artesian well-boring will meet no success on the valleys west of the Rio Grande; at least, such is the opinion of Dr. Antisell, the geologist of the survey, who has deduced his conclusion from an examination into the rain-fall of the district, which it appears does not amount to such a quantity as would justify the great expense incurred by Artesian boring. This, we believe, is a new view of this matter, and would, perhaps, prevent unnecessary expense if the same calculations were previously made in all such cases. The geological condition of the strata favorable for the existence of Artesian wells are met with on the plains of the Gadsden purchase; but as the fall of rain is slight, Dr. Antisell believes that the wells are not there. There is, however, water in abundance for all ordinary travel, and before a railroad can be established here, a good wagon road should be made, which would be frequently traveled, and mail-routes might be established to deliver the mails along those valleys now settling up, and even reach California as soon as the ocean ship mails. There is no doubt that the mail could be carried between San Antonio, Texas, and San Diego,



California, in thirty days, as the route has been traveled frequently in that time, and intervals of it even quicker; thus, from San Antonio to here has been traveled in twelve days (six hundred and seventy miles;) wagons have traveled in nineteen days from this river to Fort Yuma, and horsemen in fourteen with ease; and the route from the Colorado river to San Diego can be traveled in three days when that road is graded and worked a little. There has been no Indian trouble during this year on this parallel, and little likelihood of any for some time to come. This line offers every facility for overland California emigration. There is no doubt that the day is not far distant when Guayamas will be the terminus of the line of travel across the continent; by making the railroad terminus at that point, one-half the line of travel from the Rio Grande westward would be saved, and a steamer thence to San Francisco would shorten the whole route several days—leaving Tuscan and starting along the headwaters of the Zagui river, down its valley, through a populous and fertile district to the gulf; but we are forgetting that it is still Mexico.

Nothing can exceed the beauty and fertility of the Mesilla and El Paso Valleys; grapes, pears, peaches, as fine as any raised in the States, are grown here; beets and other roots even superior. Potatoes can be raised on the mountain sides—the bottoms being too warm. When filled up by an active population, New Mexico will be a rich State. Along this valley are mines of lead, copper and silver, waiting to be opened; the silver veins in the Oregon mountains east of the Mesilla Valley being as rich as those of Mexico. These have been examined by the geologist of Parke's survey, and will be reported upon. In fine, this country only waits for some public avenues of travel to be opened up to make it one of unsurpassing comfort and wealth to the first settlers.

From the Railroad Record of Oct. 18.

## RAILROAD TO THE PACIFIC—TEXAS WESTERN R. R. COMPANY.

In the Record of May 10, 1855, we reviewed the Government Reports on the subject of the Pacific Railroad. Considering (as we still do) that the Government had substantially abandoned the construction of a railroad to the Pacific, and that the work, great as it is, would be constructed by private enterprise, aided by the states, we judge the Texas route as the most eligible. If the central and north-western states shall not be satisfied hereafter with that route, they must charge themselves with the fault; for it has been in the power of their representatives to come to the adoption of the Central Pacific Road. But, in fact, that is no cause for local jealousy. Take Cincinnati, for example, as a central point, and, by means of the "Ohio and Mississippi," the "Illinois Central," and the "Cairo and Fulton" Roads, the central West can communicate with San Francisco (the Texas road being made) as speedily and cheaply as they can by any road north of it. Local objections, then, should have no weight. On the other hand, the Texas route has one immense advantage for a railroad, viz.: the mildness and uniformity of its climate. On the line of the 32° of latitude, the thermometer seldom rises above 75° or falls below 50°.

Hence ice and snow make no objections to this route, and external heat will seldom oppress the traveler.

In our review of this route, we made the following figures:

|                                        |              |
|----------------------------------------|--------------|
| Distance from Fulton to San Pedro..... | 1,618 miles. |
| Arable Land.....                       | 784 "        |
| Sterile ".....                         | 834 "        |
| Cost.....                              | \$67,980,000 |
| Value of lands granted by Texas.....   | 45,628,000   |
| Capital required.....                  | 22,352,000   |

In other words, a company of enterprising capitalists can construct a railway over the North American Continent, from the Mississippi to the Pacific, for less than *twelve thousand dollars per mile (1)* of actual money. Can it for one moment be doubted—the work being finished—that such an enterprise is one of the greatest speculations the world has ever offered? Let it be remembered, that in the estimate placed on Texas lands, they are put at less than *one-half* what western lands, held by railway companies, are now producing; while travelers represent them as the most tempting of the earth, for soil and climate.

Since we wrote the article referred to, we have read and published (in the *extra Record*) the able and satisfactory Report of Col. Gray on this subject. It will be seen, by those who have seen it, that he more than confirms the representations made by the Government Surveyors and ourselves. We have only space here to condense some of the points he has made.

1. *Soil and Climate.*—The most favorable account is given of this in Gray's Report. It must be remembered that he and his party actually traversed and viewed every foot of ground through which the Texas Pacific Road will pass. From this, it appears that the 780 miles from the eastern boundary of Texas to El Paso, is a fine, fertile country. In New Mexico, (578 miles) the land is certainly not so good for agricultural purposes; but rather barren. There are, however, valleys and areas of good land, which, taken in connection with great mineral resources of various kinds, will make that by no means an undesirable country. In California (260 miles) the land is various. The mountain ranges towards the Pacific reduce the arable land to a small quantity; but here again the mineral district will amply compensate for the want of due advantages.

2. *Value of Texas Lands, and cost of Construction to the Rio Grande.*—Col. Gray, taking minimum prices, has arrived at the conclusion that the value of lands granted by Texas to this road is \$44,789,760; which, the reader will observe, is but little less than we estimated them at. But, it will also be observed, that Colonel Gray estimates the entire cost of the road through Texas at about \$20,000,000. It follows, then, that the Texas Western Railroad Company can actually construct a railroad from Louisiana to El Paso (781 miles) with the lands given by Texas, and have *twenty-four millions of dollars in land remaining!* If the company chose then to stop at El Paso, they will have made the greatest speculation this country has afforded! But that is not all. They will, by road to El Paso alone, have by far the best route to Cali-

fornia, and one with which the ship route cannot compete!

3. But supposing the whole road to be made, from the Eastern boundary of Texas, near Shreveport, Louisiana, to San Pedro, then the following is the estimated cost and means, which we republish, that the reader may see the whole at a glance:

### RECAPITULATION.

*Cost of Road and Equipment (through State of Texas (783 miles) from Navigable Waters of the Mississippi, near Shreveport, Louisiana, to Rio Grande, near El Paso.*

|                                                                                                                                                                                  |              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Graduation and Masonry.....                                                                                                                                                      | \$4,500,400  |
| Bridging.....                                                                                                                                                                    | 166,600      |
| Superstructure, including Iron,...                                                                                                                                               | 9,411,966    |
| Equipment: Passenger and freight stations, buildings and fixtures, including depots, machine shops and machinery; Locomotives: passenger, freight and baggage cars, &c., &c..... | 3,550,000    |
| Engineering and contingencies,...                                                                                                                                                | \$2,000,000  |
| Total cost of Road through Texas,.....                                                                                                                                           | \$19,688,366 |

Average cost per mile, ..... 25,144

*Cost of Road and Equipments through Territory of New Mexico (578 miles) from Frontera, on the Rio Grande, to Navigable Waters of the Pacific at Junction of the Gila and Colorado.*

|                                                                                                                                                                                                           |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Graduation and Masonry.....                                                                                                                                                                               | 3,217,500    |
| Bridging.....                                                                                                                                                                                             | 56,000       |
| Superstructure, including Iron,...                                                                                                                                                                        | 8,089,688    |
| Equipment: Passenger and freight stations, buildings and fixtures, including depots, water and fuel stations, machine shops and machinery, locomotives, passenger, freight and baggage cars, &c., &c.,... | 2,837,500    |
| Engineering and contingencies,...                                                                                                                                                                         | 2,000,000    |
| Total cost of Road through New Mexico,....                                                                                                                                                                | \$16,200,688 |

Average cost per mile, ..... \$28,028

*Cost of Road and Equipment through State of California (260 miles,) from the Navigable Waters of the Colorado to the Harbor of San Diego or San Pedro.*

|                                                                                                                                                                                              |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Graduation and Masonry.....                                                                                                                                                                  | \$1,640,000 |
| Bridging.....                                                                                                                                                                                | 250,000     |
| Superstructure, including Iron,...                                                                                                                                                           | 4,124,120   |
| Equipment: Passenger and freight stations, buildings and fixtures, including depots, water and fuel stations, machine shops and machinery, passenger, freight and baggage cars, &c., &c.,... | 1,667,500   |
| Engineering and contingencies,...                                                                                                                                                            | 1,000,000   |
| Total cost of Road through California,.....                                                                                                                                                  | 8,681,620   |

Average cost per mile, ..... \$33,000

*Total Cost of Railway, (1621 miles) from navigable waters of the Mississippi, Eastern Boundary of Texas, near Shreveport, to the Harbors of the Pacific,.....*

*Value of the Lands donated under Texas Western R. R. Charter, February 16th, 1852 (8 sections to the mile, and estimating only 8 under Act of 30th January, 1854—10,240 acres for every mile of road built) at \$5 and \$8 per acre, as per estimate in the first Division.....*

Supposing, as we fairly may, that the Company sells but *one-half* its lands for immediate construction, at \$20,000,000, and reserves the other half till the road is completed to El Paso, then the remaining will be worth double, or \$40,000,000. Then it is within the limits of possibility, and even probability, that the great Pacific Railroad may be completed for the lands granted by Texas, and leave the company with the entire road and several millions of dollars, *free of cost.* To accomplish this, however, would require a great concentration of means, great prudence and energy in the prosecution of the work, and an untiring and indomitable perseverance. These qualities are hard to unite. But such things have been done, and why not in this enterprise, which offers such an immense and glittering premium to talent and capital.



(From the Cincinnati Daily Commercial.)

#### PACIFIC RAILROAD—SOUTHERN ROUTE.

We must have a Railroad to the Pacific. There are many preliminaries to be settled, and the expenses of construction and working will be enormous, but the road must be built—it is a national necessity. When the idea of the road was forced prominently before the people by the sudden greatness of our possessions on the Pacific, there were many wild fancies concerning the enterprise. And it was natural that there should be, for there is no subject which appeals more strongly to the imagination. On the opposing shores of the great tranquil sea are the opulent regions of the Orient, and wherever the current of commerce with them has flowed, the capitals of the world have arisen. It was a popular belief, instigated by the eloquence of Statesmen whose imaginations had been captivated, that if a great railroad could be constructed across this continent, it would draw the fertilizing stream of trade between Europe and the Indies, and that we would gather the golden and imperial profits of that intercourse—that Palmyras and Tyres would spring, as it were, out of our soil. It is usually conceded now, we believe, that calculations, upon the presumption that the commerce of the lands where the far West becomes the East, would cross our continent in Railroad cars, were delusive. But as these oriental vapors have been dissipated, the grandeur of the plain facts in the case has been made more manifest. It is enough to say in this place, that the road is demanded by every consideration which it is reasonable to presume is held dear, by the most patriotic, money-making and money-loving of nations.

The question now most pertinent and most agitated is, on what route can, or shall, the road be constructed? In considering this question, we must look at it with the breath of intellect and scope of vision demanded by the continental dimensions of the enterprise. All narrow and sectional views must be cast aside, for the work in hand is of an eminently national character and importance, and to accomplish it a national effort is required. If this work does not properly belong to the Government, it is certainly a job for the whole people. We have recently published several documents setting forth the advantage of the SOUTHERN ROUTE, and testimony in favor of that line accumulates upon us. It runs along and near the parallel of north latitude 32 deg., through the State of Texas and the Territory acquired from Mexico under the Gadsden Treaty, to the junction of the Gila and Colorado rivers, and thence through California to the Pacific. That there will be many local prejudices excited against this line we do not doubt. The people of Chicago may contend that there is nothing equal to a line running as near the north pole as possible, and the St. Louis folks may regard with perfect contempt, any proposition to construct a road that will not in a special manner benefit their city. We have a better point of observation than either, being so near the center of North American civilization that we can look with complacency on the struggles going on around the edges of the country, and judge with impartiality of the differences among frontiersmen. We hold that if a road is built across the Continent, it will not be essentially important at what point it joins our system of Railroads. The object is to construct the road where it can be done most cheaply, and where it can be most easily kept in order.

The tremendous snow storm that buried trains in Illinois last winter, was a solemn warning to those who regarded lightly the perils of storms on the mountains and the vast plains over and through which the central route leads. But this subject we discussed last winter, and we care not to recapitulate our remarks now, and will proceed to examine some of the advantages claimed for the Southern route.

From a recent report of the Hon. T. BUTLER KING to "certain New York capitalists, in behalf of the Texas and Gadsden route," we quote the passages following:

"The charter of the Texas Western Railroad Company permits the work to commence at a point on the eastern boundary of that State, which will afford the greatest facilities for connecting it with the railways which are extending in that direction from St. Louis, Cairo and Memphis, through Arkansas, by way of Little Rock and Fulton, from Vicksburg, Louisiana, to Shreveport, and from New Orleans, by the Opelousas Railroad, thus bringing the system of railways throughout the Union, north and south, by converging lines, to that point on the eastern border of Texas and connecting them with the line under consideration to the Pacific.

From the eastern boundary of Texas to the Pacific, on the route surveyed by Col. A. B. Gray, the Engineer of the Texas Western Railroad Company, there is 1,621 miles, which will be very much diminished by the grade of the road, making it not far from twice the length of the Illinois Central Railroad. This is supposing the road to strike the Pacific at the nearest point. If it be extended to San Francisco, the distance will be increased some five hundred miles.

The climate on this line is mild and salubrious, being free from snow and ice in winter, and the diseases caused in southern latitudes by miasm in summer. Uniting, as it will, in a healthy region, with the railroads leading north and east, a transit over it at all seasons of the year will be safe and pleasant. The lands reserved in Texas to encourage the construction of this work through that State, are not surpassed in fertility by any other portion of the Union.

Texas grants to the company making this road, in compliance with the terms of the charter, sixteen sections of these lands, or ten thousand two hundred and forty acres, for every mile of road constructed. If, after the work shall be completed, these lands prove to be worth five dollars an acre, they will produce a fund of \$51,400 per mile, or a reliable basis for a credit to that amount."

But we have information of the Southern route that is later and less open to suspicion than this. On the 11th of October, Lieut. Parke, of the U. S. Topographical Engineers, with his party of survey, arrived at San Antonio, Texas, from the West. The party consisted of Lieut. Parke, commanding, A. H. Campbell, civil engineer, N. H. Hutton, H. Custar, assistants, G. G. Garner, astronomer, Dr. Antisell, physician and geologist, and had been in the field actively engaged since the 22d of November, 1854. From that date until the close of May last they were engaged in California. On the 26th of May they left San Diego, and reached the Rio Grande at Fort Fillmore on the 6th of August, having spent most of the interval in the examination of that extensive country which borders the Gila. The Washington Union says:

"Lieut. P. has been highly successful in his explorations, which go to prove that the

line examined near parallel 32 deg. is the shortest and easiest route to California, requiring no tunneling, there being no steep ascents, and goods can be carried over the whole route; and by avoiding Tuscan and striking for the Gila, which receives the San Pedro, the long and dreaded hornada of ninety miles may be avoided. Even as a wagon and emigrant route, this new one proposed and traveled by Lieutenant Parke in this expedition will save distance and fatigue to animals, as more grass and water are to be had than by the "commission-boundary" route, or "Colonel Cook's trail." By proceeding almost due west from Cook's Springs, by Ojo de Vacca, a series of valleys running north and south is reached, bounded by short ranges which can be traveled round—these valleys looking round into each other, and tending northwest to the Gila river, which may be struck where the fertile little valley of San Pedro (the Rio Chiquito of the Apaches) meets that river, in this course every mountain range is avoided, and a country well supplied with gamma grass is traveled over."

There are several branches to this subject which will require consideration in another article.

(From the Cincinnati Enquirer.)

#### THE PACIFIC RAILROAD.

Since the golden Pacific coast first lured the adventurer to our Western shores, and more especially from the period that California had assumed so important a position that she was received into the Union of North American States, there has been no project of more national importance proposed than that of uniting the great East and the rapidly developing extreme West by a direct and speedy railroad communication. Statesmen, capitalists, and business men of every branch, have given the matter consideration. The gigantic project at first, to many minds, appeared Utopian; but, as the necessity of some such measure forced itself upon the understanding, the means and possibility of its accomplishment received from day to day more attention and study, until at last the problem has been solved and doubts have been swallowed up by certainties. It was perfectly natural, in looking forward to the great end, that the trails first used by the hardy adventurers who traversed the Western deserts, either to seek the trade of Santa Fe or the promised land of Omar, should appear the most practicable. But upon scientific examination, taking into consideration the insurmountable obstructions from natural causes, it was discovered that to insure the probability of successful realization of the hopes of projectors, in a more southern latitude must be sought the location of the great Pacific Railroad.

To this end surveys have been made by impartial and reliable engineers upon or near the latitude of thirty-two degrees north, commencing at the eastern line of Texas, at the terminus of the Vicksburg and Shreveport Railroad, and extending nearly due west, tapping the Gila River where it flows into the Gulf of California, thence to San Diego or San Pedro on the Pacific, and finally to San Francisco. From our own knowledge of a portion of the country thus traversed, especially in Western Texas and New Mexico, we were at all times confident that this would be the most feasible route, and our former convictions have been confirmed fully by a careful examination of Captain HUMPHREY'S review of the various Pacific Railroad surveys,



under direction of the Secretary of War, and more especially have we derived much information from the very able and full report of A. B. GRAY, Esq., made to the President and Directors of the Texas Western Railroad Company. From the clear and concise documents furnished by the latter gentleman, it is not only clearly established that the topography of the country is admirably congenial for railroad purposes, but that, also, every other inducement is presented. The climate is unsurpassed, varying during the months of summer from seventy to seventy-six degrees, and during the winter months from forty-eight to fifty-four degrees, as indicated by FAHRENHEIT's thermometer. The soil is rich, and well adapted for the culture of cotton and of various grains, prolific of grasses, fruits and vegetables, and almost unequaled on the globe for the purposes of grazing. The mineral wealth of this territory is almost incalculable, abounding in stone-coal of excellent quality, iron and copper ore, and rich veins of gold and silver. The land is generally rolling, presenting but few abrupt elevations, and, therefore, making the expense of grading comparatively light, while the hills abound with the best of stone material for masonry. Water is accessible at all points, either from running springs, natural reservoirs, or by sinking very shallow wells. The rivers and smaller streams present no serious obstructions to the erection of bridges or culverts, the banks being generally firm, and a solid foundation easily attained. There are no natural causes why this route should not be available—in fact, the very best to be found in any portion of the territory between the Mississippi River and the Pacific.

There is no longer any doubt but that this enterprise will be pushed forward to early completion. It is in the hands of *live* men, who fully appreciate the immense results that are bound to flow from this gigantic enterprise. They have prudently made every calculation, taken into consideration every cost, leaving at all times a large margin to cover contingencies. They know exactly their means, with their availability; every outlay has been calculated to a fraction, and every obstacle has been justly weighed.

The trade that must be diverted to this channel is known, and the recompense will fully justify the investment. Every man in the Union is more or less interested in this great measure, whether he dwells upon the Atlantic or Pacific coast, or in any city where commerce or manufacturing art should be encouraged. All who believe that by intimate connection of the distant parts of our Union we secure its perpetuity, must feel a zealous interest in this band which is to stretch from one extreme of our States to the other, and render us truly one people and of one interest.

It is our intention to pursue this subject again at an early period, and prove, by facts and figures in our possession, several points which we deem important, to convince the most sceptical that the Pacific Railroad will be built; that the lands ceded by the State of Texas are more than sufficient to pay the whole cost to the Rio Grande; that investment in the stocks will be remunerative to an extent heretofore unknown in any enterprise of like character, and, above all, that Cincinnati is most deeply interested, and should not let slip the opportunity to own a controlling interest in the stock.

(From the New York Herald.)

### THE PACIFIC RAILROAD—THE EXTREME SOUTHERN ROUTE—LETTER OF HON. THOMAS BUTLER KING.

We publish to-day an interesting communication from Hon. Thomas Butler King on the subject of the Pacific railroad, and in behalf of the extreme Southern route through Texas and the Gadsden purchase, and thence via the Colorado to San Diego.

The special object of Mr. King, in this letter, is the enlightenment of our New York capitalists upon the subject discussed. In the general views of the writer touching the world-embracing commercial advantages that would accrue to the road and to the country, from the completion of this continental highway of Europe from the East and Asia from the West, few of our readers, we presume, will differ. Nor do we suppose that, from the financial, constitutional, sectional and party impediments to a construction of this Pacific road by Congress, that any better general plan can be proposed for the building of the work than some incidental appropriations by Congress, some subscriptions by the States most immediately interested, and with the general conduct of the enterprise in the hands of one or more private corporations.

We have also expressed heretofore, what we now repeat, from a very careful examination of official and unofficial reports of our various Pacific railway routes, to wit: that the extreme southern route through Texas via El Paso, and the Gadsden purchase, is, by all odds, the most feasible route. We are of the opinion, in fact, that it is the only feasible route for a railroad from the Mississippi river to the Pacific ocean, and for these reasons: It is from five hundred to a thousand miles shorter than any other route; it turns the two great snow covered chains of the Rocky Mountains and the Sierra Nevada, and runs upon a comparatively dead level, where these formidable mountain barriers are depressed into the table lands of Chihuahua and Sonora. It runs through a region of country which, from its latitudes, is almost free from the snows of winter that entirely obstruct the mountain passes of the northern routes, and which, from its general altitude, is remarkably healthy and genial throughout the year. Crossing the open plains, too, the road builders by this extreme southern route will be relieved of the tremendous drawbacks which the numerous mountains, mountain streams, chasms, volcanic defiles, &c., will suggest by all the more northerly routes, in excavations, tunnels, causeways and bridges.

Thus far, we concur with Mr. King in the marked advantages of the Texas and Gadsden route. They are visible in a glance at the map of the United States. But in regard to the fertility of the Gadsden country we must demur.\* It is a desert—a barren, dry and howling wilderness—with here and there an oasis, watered by a welcome stream, but which is sooner or later absorbed by the greedy sands. This desert region may be rich in gold, silver and copper mines, but they have not yet been discovered to any satisfactory extent. Here and there, around the *buttes*, or along the detached rocky ridges which are scattered over this waste, there may be a patch, now and then, of available railroad timber; but we apprehend that it will be found cheaper to transport all the wood for the superstructure of the road, from both ends of the line, than to depend upon the scraggy and scanty materials along the route. We suspect, too, that the road through Texas must first be built, before the lands accruing to it can be safely estimated at five dollars an acre.

Finally, considering the present agitation of the slavery question, the unsettled condition of the financial and political affairs of both hemispheres, the dead expenditure of the many millions of money and the many years of labor that would be required before any return could be derived from this Pacific road, (for even by this southern route it would, as a continental work, yield nothing till completed,) we had fallen into the general conclusion that the enterprise had been postponed, by common consent, for a more convenient season.

The Texas branch of the road, however, considering the lands involved, may still be a safe investment as a local work. Beyond this we cannot perceive any immediate practicability in the interesting and instructive argument of Mr. King.

[\* The *Herald* is mistaken in its views of the fertility of the Mesilla Valley, as is proven by all recent accounts. The testimony of Col. A. B. Gray, of Lieut. Parke, and of Major Emory, all go to show that it is a country that will not only bear to be inhabited, but is capable of producing a surplus to sustain those who may be engaged in searching after its mineral wealth. But suppose we admit that the *Herald* is correct, as to the general features of the Gadsden Purchase, it is a well-known fact that mineral lands are worth from four to ten times as much as the best of agricultural lands. Not only is this true, but their value is also increased by railroads in a much greater ratio. A railroad through this hitherto "howling wilderness" will not only develop its mineral wealth, but will also call into requisition its arable soil; the agriculturists will have a home market, at remunerative prices, for their surplus produce in the wants of those who are gathering the riches of the bowels of the earth, and the wealth of both classes will be returned home into our laps in untold millions.]

From the Galveston News.

### SOUTHERN PACIFIC RAILROAD.

The following communication from a gentleman who has travelled over several of the proposed lines of Railroad to the Pacific coast, will be read with interest by every one at all interested in the construction of such a road, or in the general welfare of the country.

**A RAILROAD TO THE PACIFIC.**—This subject has for a long time occupied the attention of the public mind, and many of our prominent men have urged the expediency of large appropriations of land and public credits, to consummate this most desirable object. But so far, government has declined acting in the premises, further than to cause the necessary surveys of the different routes. These surveys have been made by impartial and experienced engineers, and the result of their labors has been officially reported to Congress, and the report of the Secretary of war now affords all the necessary information for any one desirous of engaging in this great enterprise, where to invest his capital, so that he may realize the quickest and largest per centage on his investment.

With due deference to Gov. Stevens, who advocates the extreme northern route, or Cols. Benton and Fremont who valiantly claim that the great "Central Route," is the only route worthy of attention; these scientific men proclaim to the world that there is but *one feasible route*, and that is the extreme southern or Texas route. Nature has placed insuperable and insurmountable obstacle in all the routes north of the parallel of 32 degrees. She has piled up her mountains, "Mountains high." On the summit of these, are the eternal Glaciers, and in the defiles and valleys, a nine months winter.

From the new settlements on the *Eastern boundary* of Kansas and Nebraska, and St. Paul in Minnesota, the whole of this country is still in its primitive wilderness state. The red man still roams over its prairies and mountains, in quest of game and plunder, and as is the ocean to the seafarer, so is this wilder-



ness to the emigrant, it is only traversed as a highway to countries beyond its limits.

The central portions are an unprofitable, irreclaimable wilderness, without timber, and for long stages without water, with scarcely an oasis to relieve the monotony of its dreariness it is the great American desert, in crossing which the wayfarer has more to dread, than the mariner who dares the sea, not only on account of the inhospitable character of the country, but also from the hostilities of the native savages, besetting his path, and seeking his destruction. In the face of these facts, it would show a timidity bordering on insanity, in any one to be found advocating the superior claims of the northern route, the Mormon route, the *great central route*, or the Albuquerque route.

If the secretary of war's report is considered by any one, as partial to southern interests, let him inquire of the president of the Illinois Central Railroad, the expense of that Company in clearing their track of the superabundant snows of the past winter. His answer will satisfy the most incredulous as to the fallacy of advocating any of these routes.

Let us now examine the claims of the Southern or Texas Route. In the first place it is nearly a thousand miles shorter than the Northern Route, and in the second place it costs only about one-half as much as any one of the others. There are no mountains to go over or under, no grade exceeding 66 feet to the mile, and this only for a short distance. It is located on the parallel of 32 through the State of Texas for a distance of 800 miles. Taking a belt of country of 200 miles in width, with this parallel for a centre through the entire length of the State, I venture to affirm, without fear of contradiction, that it is unsurpassed in fertility of soil, salubrity of climate, and all the great natural resources which, when developed, go to make a highly civilized and populous country. It abounds in minerals of every description, iron ore of the purest quality exists in great abundance. Extensive quarries of red and white freestone abound throughout the country. On the Trinity and some other parts of the State, are quarries of a pure white stone, soft and easily wrought to any shape or form, but on exposure to the atmosphere, it becomes a perfect freestone, as solid as marble. The forests contain an infinite variety of timber, suitable for building and ornamental purposes. Live Oak, Cedar, Pine, Oak, Ash, Walnut, Hickory, Pecan, Mulberry, Cypress, Holly, and the beautiful flowering Magnolia.

Among the agricultural productions, most naturally adapted to the soil and climate, and which now form a chief and important article of commerce, cotton stands pre-eminent; this is the great crop of Texas, and the source of much of its wealth and power. Sugar Cane grows luxuriantly throughout the State, but its culture will not be extensive, nor will the sugar of Texas ever compete with Louisiana. Tobacco grows almost spontaneously throughout the country. It is an important production, equal in quality to that of Cuba, and will soon become an article of commerce and export. Breadstuffs of every description are produced easily and abundantly in every county. Two crops of Indian corn annually, is a common thing; one planted in February and the other in July.

Fruits of every description are profusely plentiful. The fruits of the tropics and the north, alike flourish in Texan soil. The fig is common, the peach unrivalled, the nectarine, quince, and grape luxuriant, and these,

side by side, grow in the same sun and soil with the plum, apple, and papaw. The orange, lemon, and lime, the pine apple, and olive ripen together. Pecans, walnuts, and hickory nuts are here abundant. Garden vegetables of every description, and melons are easily cultivated, and yield a rich return to the hand of industry. All who have visited Texas concur in ascribing to it a climate unsurpassed. Though varying with location from tropical to temperate, it is remarkably pleasant and salubrious. It is modified by so many favorable circumstances, as to possess all the genial influences of Louisiana, without its attendant evils. A country possessing these desirable qualifications and advantages, cannot remain long in an uncultivated state, and such is the case with Texas. A strong, healthy, industrious army of emigrants, of over 100,000 souls, settled within her borders last season. The greatest share of these seek the line of the railroad. Nearly all would locate along this line, if the lands were in market. But all the public lands lying between the parallels of 31 and 33, are reserved from sale by the government, until the Railroad Company locate their land.

The valley of the Rio Grande is situated about equi-distant from the Eastern boundary of Texas and San Diego, on the Pacific. It produces the necessities of life in great abundance. The grape, the apricot, the peach and the pear grow to perfection, and in great quantities. Wheat of most excellent quality, and corn in great abundance are raised above and below El Paso. The census of 1850 gives for new Mexico a population of near 70,000, nearly all of whom reside in this valley, and would receive their imports through this road whenever it is in operation to El Paso. The climate of New Mexico is temperate, constant, and healthy.

Col. A. B. Gray, United States Boundary Commissioner, as Chief Engineer for the Texas Western and El Paso Railroad Company, surveyed the route from Fort Chadbourn in Texas, to San Diego on the Pacific, running through El Paso, the Mesilla Valley, the Gadsden Treaty purchase, the Pinas Villages on the Rio Gila, down this to its mouth, crossing the Colorado at or near the American Fort, thence across the lower part of California to San Diego. Col. Gray's Report is not yet published, but will be laid before the public in a few days. I have read it in manuscript. It is more full, and gives a more minute description of country, than the report made by the engineers in the employ of the United States. It is accompanied with maps and drawings, and a profile of the line, all of which shows a most favorable route for the location of the World's Great Highway. It traverses a country susceptible of cultivation nearly the whole distance, and is already settled at short intervals along the whole line. It is blessed with a mild and healthy climate, free from the enervating influence of tropical heat, without danger of detention, or loss of life from the drifting snows of a northern winter. Along this line, a man may work every day in the year, and when the road is completed, we may safely depend upon the cars running the year round.

And, in addition to these superior advantages over all other routes, Texas offers 16 sections, or 10,240 acres of her choice lands for every mile of road built through her State. These lands of themselves, if properly managed, are sufficient to build and equip the entire road to El Paso.

EL PASO.

(From the *Galveston News*.)

#### PACIFIC RAILROAD.

In our paper of Thursday, we published an extract from a late money article of the *New York Herald*, announcing the re-organization of this project, under the Presidency of Ex-Governor Dimond, of Rhode Island. The positive character of the statement in that article, that a contract was made for the immediate building of the road, the names of the contractors, and other apparently reliable details, induced us to promise a fuller reference to it. Since then, we have seen the contract still more specifically referred to in the *New York Journal of Commerce*, and, finally, we have received an extra of the *Railroad Record*, of Cincinnati, devoted entirely to this subject. The report of Col. A. B. Gray, who surveyed the route from Fort Chadbourn, on the Colorado, to San Diego on the Pacific, is given in detail, and comprises everything hitherto known of this route, with much that is new, and all verified by actual observation and survey. The history of the operations of the Company is also given, and we cannot make a better resume of the whole subject, than to extract from the various heads, under which the subject is presented in the *Record*.

We have only had time to glance over Colonel Gray's report, in order to collect the topographical features of the country, and rejoice to find that the route is even more practicable than was supposed. As the subject is one that will always interest Texas particularly, and also in common with the Union at large, we may frequently recur to it; but content ourselves for the present with the remark, that in point of soil and verdure for stock raising, we find the country to be superior to what was popularly supposed. The table land from the Pecos to the Gila, is fertile, and covered with abundant grasses, water sufficient for stock is often found, and artificial means may supply it in any quantity. The valleys of the Gila and its southern tributaries are always well sodded with grass—often extremely fertile, and besides the cereal grains, produce a peculiar cotton, assimilated to the Sea Island, by virtue of the saline qualities of the soil on that region of the Gila River. Let it be remembered too, that all these products and a mineral wealth, probably equal to California, lie along the very pathway that nature has established across the Continent.

CINCINNATI, Nov. 13, 1855.

MESSRS. T. WRIGHTSON & Co.,

Publishers of *Railroad Record*,

GENTLEMEN,—You will please allow me to answer in your *Record*, numerous enquiries as to how long the opportunity of subscribing to the stock of the Texas Western Railroad Co. will be afforded at 5 per cent. instalments, or for cash 10 per cent. discount therefrom, by quoting a resolution of the stockholders at their meeting in New York Sept 10, 1855, viz.:

"That only 25 millions of the stock of this Company be disposed of, on which the assessment are limited to 5 per cent., and that the only expedient for the issue of more stock than that amount, be an entire exhaustion of all other means and plans; and, in that event, to issue only to the amount needed, requiring payments thereon of not less than 50 per cent., and that 10 per cent. discount be allowed to all subscribers paying three months herefrom in cash the full amount of the required instalments of 5 per cent."

The stock is being rapidly subscribed, and the probability is, that many who are procrastinating will be favored ere long with the privilege of taking stock, at a material advance, over 5 per cent. Such an unprecedented opportunity for profitable investment cannot long remain unimproved. Those who design to take the stock, should do so immediately.

Yours respectfully,

EDGAR CONKLING,  
106 West 4th St., Cincinnati.



# Railroad Record.

E. D. MANSFIELD, - - - Editor.

W. WRIGHTSON, } Associate Editors.  
T. WRIGHTSON, }

CINCINNATI:

THURSDAY MORNING, ..... NOVEMBER 29, 1855.

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☞ We had a visit from our friend ALFRED BRIDGES, Esq., of the firm of Bridges & Bro., the great railroad furnishing house of New York, who supply a great share of those articles consumed in the west. Parties who use such things, and have not made his acquaintance, would find it to their interest to call on them when they visit Gotham.

☞ We are indebted to the Hon. Wm. H. English for the first volume of "Explorations for a Railroad Route from the Mississippi river to the Pacific," for which he will please accept our thanks. We trust as he has been kind enough to forward us the first volume, that he will also remember us with the balance of the series, together with such maps and profiles as may be issued, and we will promise in our turn to use them for the benefit of the country.

VOL. III.—No. 40.

### RAILROAD EXPERIENCE—RAILROADS OF CONNECTICUT.

There is nothing better adapted to give correct information and furnish practical rules for the investment of money in railways, than a general annual report of their condition and business. Some railway companies do this on their own account, and in two or three States there are Railway Commissioners (as there should be in all,) who report the condition of all the Companies in the State. For want of this, in most of the States, the majority of companies—especially those not doing well—keep dark, and conceal their operations from the public. Such companies should be closely scrutinized, or their stock held in doubtful report.

We have before us the Annual Report of the Railway Commissioners of Connecticut. The elements furnished by this Report, are as follows:

|                              |              |
|------------------------------|--------------|
| Number of Companies.....     | 15           |
| Miles completed.....         | 908 miles.   |
| Double Track.....            | 111 "        |
| Cost of Roads.....           | \$28,884,488 |
| Cost per mile.....           | 38,800       |
| Gross Earnings.....          | 3,527,225    |
| Expenses of Working.....     | 2,354,291    |
| Nett Earnings.....           | 1,172,934    |
| Dividends.....               | 459,709      |
| Debts.....                   | 10,785,156   |
| Surplus.....                 | 266,536      |
| Persons carried in Cars..... | 2,958,698    |
| Persons killed.....          | 19           |
| Passengers.....              | 2            |

From these data we draw the following additional inferences:

|                                   |                 |
|-----------------------------------|-----------------|
| One mile of railway to every..... | 6 miles square. |
| " " cost.....                     | \$32,000        |
| " " received gross.....           | 4,000           |
| " " earned nett.....              | 1,300           |
| " " " per cent.....               | 4 per c't.      |
| " " carried passengers.....       | \$ 3,290        |

Chance of fatal accident to passengers... 1 to 1,479,349

These facts prove, that Connecticut has overdone the Railroad business as to *profits*, and that she has more miles of railway *in proportion to the surface*, than any State in the Union. The same proportion in Ohio would give us nearly 7,000 miles. We shall probably in the course of three years obtain 4,000, and at that number, costing less in the average per mile, and having four times as much produce proportionally to carry off, there is no reason why Ohio Railroads should not average seven per cent. net profits, and that is good stock.

The six North-Western States will probably have, in the course of ten years, 25,000 miles of Railway, and if they stop there, it will be good property.

Of the fifteen Railroad Companies in Connecticut, *nine* yield less than *two per cent.*; *three* yield between two and six per cent.; and *three* yield more than six per cent.

Although this is a discouraging report for the Railroads of Connecticut; yet, it is a very encouraging one for the Railroads of the West. For, if a little State with 400,000 inhabitants only, can pay \$1,200,000 net pro-

fits on a capital of \$28,000,000 invested, how much will railways pay in an immense territory having four-fold the proportion of resources, and not more than half the proportion of miles of railway? There are exceptions to all general rules; but, we are convinced, that if the great mass of railways made, or to be made in the next five years in the North-West, are managed with common skill and prudence, they will yield not only a fair, but a large profit to their holders.

### INCREASED TRADE OF CINCINNATI.

We have heard persons, and some of them in Cincinnati, who have expressed the idea, that the trade of Cincinnati was not now prosperous. Nothing is more contrary to the fact. Cincinnati has now a greater commercial prosperity than she ever enjoyed, and it is likely to be greatly increased during the next two or three years.

As demonstrative proof of this, we cite the following *exports* of produce, derived from the Ohio Valley, since the first of September, ultimo; a period of eighty days only.

| Exports since First September, 1855. | 1854.               |
|--------------------------------------|---------------------|
| Beef, bbls.....                      | 5,030..... 4,938    |
| Butter, firkins.....                 | 8,510..... 5,827    |
| Corn, sacks.....                     | 37,299..... 13,178  |
| Cheese, boxes.....                   | 35,345..... 25,027  |
| Candles, ".....                      | 17,617..... 16,976  |
| Cooperage, pieces.....               | 25,153..... 3,639   |
| Flour, bbls.....                     | 219,623..... 60,241 |
| Horses.....                          | 648..... 97         |
| Iron, pieces.....                    | 184,424..... 94,935 |
| " bundles.....                       | 15,607..... 9,923   |
| " tons.....                          | 4,039..... 2,579    |
| Potatoes, bbls.....                  | 3,825..... 1,630    |
| Salt, ".....                         | 11,508..... 2,197   |
| Vinegar, ".....                      | 3,412..... 1,275    |
| Whisky, ".....                       | 48,702..... 30,201  |
| Wool, bales.....                     | 2,567..... 1,405    |
| Castings, pieces.....                | 18,129..... 15,788  |
| " tons.....                          | 743..... 97         |

These are all articles raised or made in the country adjacent to Cincinnati, and prove conclusively the continued and rapid development of the Ohio Valley. No such increase of trade, in so short a time, has ever occurred, we believe, in the history of this city, and render most absurd all croachings or doubts as to its future commercial prosperity. The increased *value* of articles of domestic produce exported in the last eighty days, is scarcely less than *two millions of dollars*. As this is less than one-fourth of the year, it is easy to see that the produce and domestic trade of Cincinnati will be nearly doubled in the current commercial year.

The increase of general trade is nearly as great, as may be seen from the following export of Merchandize:

|                            | 1855.        | 1854.   |
|----------------------------|--------------|---------|
| Merchandize, packages..... | 226,865..... | 177,150 |
| " tons.....                | 3,044.....   | 2,760   |
| Liquors, bbls.....         | 2,203.....   | 3,139   |
| Manufactures, pieces.....  | 49,339.....  | 34,852  |
| Produce, packages.....     | 279,057..... | 8,800   |

It is thus seen that the whole Produce, Merchandize, and Manufacturing trade have



increased astonishingly. Indeed, when we look into the manifests of steamboats and railways from Cincinnati, will be startled at the immense number and variety of the manufactured articles which are poured out of Cincinnati in every direction. The tens of thousands of emigrants moving West, and the new towns arising in the new States, must all be supplied with their articles of domestic use and comfort from Cincinnati, and it will be at least thirty years before any, even the largest of the new cities of the West, can manufacture for themselves. The reason is obvious. They have not the same facilities, conveniences, and concentrated labor and skill for manufacturing. They will rise and grow, and be prosperous, chiefly on internal commerce.

The railways at Cincinnati are just beginning to produce their proper effects in concentrating there the immense trade of the Ohio Valley.

#### VALUE OF STOCKS—MARKET AND INTRINSIC.

We have just passed through one of these fluctuations in the stock market that set men to thinking whether there is any real and intrinsic value in paper securities, or whether it is all imaginary and speculative. Whether there is any intrinsic safety in stock investments, or whether stocks are a mere foot-ball to be used for the pleasure of a few magnificent operators, who may play with the market any game that caprice or interest (more likely the latter,) may dictate. We confess we have been of the number of those who believed that stocks had a real value in themselves, and would be profitable as investments at such value. The operations of the past few weeks, however, would indicate that such is not the prevalent idea, at least among the operators in this particular article. For the purpose of illustration, we have prepared the following table of the values of some of the leading fancies at the respective dates in the New York market:

|                            | Sept. 19. | Oct. 17. | Nov. 6. | Nov. 16. |
|----------------------------|-----------|----------|---------|----------|
| Erie.....                  | 56½       | 56       | 41      | 52½      |
| Reading.....               | 95½       | 94       | 78      | 91½      |
| Mich. So. & Nor. Ind. .... | 100       | 84       | 95      |          |
| Chic. & R. I. ....         | 104       | 95       | 84½     | 91       |
| Cal. & Chic. ....          | 120       | 123½     | 112     | 120      |

Each of these stocks has had a market fluctuation during these two months, varying from 11 to 16 and 20 cents. The depreciation noticed on Nov. 6, was an effect of the sweeping away of the old landmarks with regard to exchange. It was supposed that when exchange reached 8½ per cent., it was no longer profitable to ship specie, and yet it was a fact, that when exchange in New York was as low as 8 and 8½ per cent., specie was shipped to Europe. Operators in stocks and money were at sea, their landmarks gone, confidence lost, a panic seized them, and stocks generally went down. Now, was this

true of any other species of property; did real estate fall in value in proportion? There may have been an isolated instance of real estate being sold in their proportion; but as a general thing, neither real estate nor merchandise depreciated under this panic. The fluctuation was in paper securities and in those only.

But here let us ask, was this fluctuation real or only apparent? Or in other words when Erie stock was selling at 41, and Mich. So. & Nor. Ind. at 84, could all the stock of these two companies have been purchased at these rates? By no means; the greater portion of all stocks are held by parties who stand, in a measure, aloof from the market; who, having means to spare, invest in stocks without any serious intention of throwing their property into market on any slight pretext, and this portion of the stock of these companies could not have been purchased at these rates, nor any near approximation to them. The market fluctuations of stocks are, in the main, mere reflections of the fluctuations of money in the great markets of the world, London, Paris, and New York. And these fluctuations are, in the long account, governed by the wants of speculators, the demand for investment and the supposed intrinsic value, each of these elements contributing to make up that anomaly called market value.

Again, market value may be governed by local causes, which has no connection with intrinsic or real value. Of such a character is the market value of New York State and United State stocks. New York State six per cent. stocks, at a value of 117 per cent., pay in reality only about five per cent. interest on the investment, while many railroad bonds at 80 to 90 per cent., pay double that amount, and being amply secured, are equally safe. But New York State stocks in New York, are a basis for banking purposes, and are, therefore, in demand for that purpose irrespective of their intrinsic value. Hence, the market value attributed to them.

The true test, however, of intrinsic value, should be that of security and income. And for permanent investments, these should be the tests applied. A stock amply secured and paying a fair rate of interest, has and should have, an intrinsic value independent of market rates, and if purchased below that value, yields so much clear gain.

#### INCIDENTS OF CINCINNATI TRADE—THE EXTENSION OF COMMERCE.

A few days since, we happened to be in a wholesale confectioners, where sweet things were made by the ton, and sent far and wide to all lovers of candies. Observing some nice, square boxes on the counter, just put up, we asked—"Where are those boxes going to?" "To Napoli Romania, the capital of Greece!" "Greece!" said we, "can't the

Greeks make their own candy?" "They have not the sugar, sir." "How long have you exported candy to Greece?" "About three years; we are about to send our candy to Constantinople, through Asia Minor?"

Here was a new idea to us, a thing not often got hold of. Two thousand years ago, Greece flourished, the most glorious nation of antiquity. But, the other day this country was a dark, savage-peopled wilderness, and now we are sending the products of our industry to that old, classic, historical world. Louisiana sugar is manufactured into Cincinnati candy, and sent to the Egean Sea, the Hellespont, and, perhaps, to Mount Olympus itself! The moral of this fact is found in the energy of development imparted by free institutions.

But our foreign trade, great as it is, increases with much less rapidity, than that of the interior of our own country. Let us take another example from the trade of Cincinnati. The trade of Wilmington, N. C., has heretofore been exclusively done in the Eastern cities, and such has been the case with the entire southern Atlantic coast. There were no railroads to the West, and as yet, the only railroad connection is a very indirect one, through Baltimore. But, the *Baltimore & Ohio* is made, and like the *Pennsylvania Central*, is making a great revolution in the current of trade. A merchant told us the other day he had shipped \$6,000 worth of pork, etc., etc., to *Wilmington, N. C.* We were surprised. "How can that be done?" said we. "The *Baltimore & Ohio Railroad* gives us a *through freight bill*, and the goods, when arrived, are found to be cheaper than they can be obtained in *New York or Baltimore.*"

If the consumer can deal at once with the original producer, he, of course, gets his goods cheaper, than when they have to pass through other hands. This is the effect of railroads. Without the *Baltimore & Ohio Railroad*, Cincinnati could as well have traded with Timbuctoo, as Wilmington.

The same merchant told us he shipped \$10,000 worth of provisions to Columbus, Georgia. This can be done by way of Nashville much cheaper, than it could be done, (if done at all,) by way of New Orleans. This is a new trade, and is a cut off from New Orleans, which, if straight line railroads are not made from it to the Ohio Valley, must lose nearly the whole of the provision and produce trade of this region.

The facts we have just stated, constitute in themselves, a powerful demonstration of the utility and value of railroads to the commerce of all large towns; and we may add, of even a greater utility to the farm-producers, whose produce, at once, commands the highest price in consequence of having a ready conveyance to all parts of the world.



## LEXINGTON AND DANVILLE RAILROAD.

In the last week, we had the pleasure of meeting Mr. ROEBLING, the distinguished Engineer of the Niagara Suspension Bridge, and who also furnished the plan and estimates for the Suspension Bridge over the Kentucky River, on the Lexington and Danville Railroad. The latter bridge, as our readers may know, is 400 feet longer than that over the Niagara! It will be the largest and best bridge of the kind in America—a noble monument to American Civil Architecture. Mr. Roebling informs us that this bridge is going on finely, and having been on the spot, he testifies, in the strongest terms, to the ability and energy with which Gen. Combs is pressing forward the work; and to the prospects of the road for a great business when finished. As the road is comparatively a short one—thirty-six miles—many persons have underrated its value. But this short distance, at the end of the Covington and Lexington, will furnish more business to Cincinnati, than the whole of the Covington and Lexington can. The reason is obvious, the *Southern end* of the Danville Railroad, to which produce is waggoned from points still further South, is 132 miles from Cincinnati, at which distance produce will be waggoned fifty miles to go on the road; but at Lexington or Paris, it will only be waggoned twenty or thirty miles. The area of new trade introduced by the Lexington and Danville Railroad, will be at least 1,600 square miles, and this is nearly or quite equal to the whole area now reached by the Covington Road.

That our readers may know the general condition of the road, we subjoin such particulars as we have.

In June last, the account stood thus:

|                                 |           |
|---------------------------------|-----------|
| Amount of Stock Subscribed..... | \$652,450 |
| Paid in.....                    | 579,816   |
| Total Receipts.....             | 601,642   |
| Construction.....               | 570,963   |

It will be observed, that the road has *no debt*—except a very trifling amount. It has no Bonds, unless it may be some \$5,000 or \$6,000 for special purposes. Since June, we believe, an estimate of \$10,000 per month has been paid, which would bring the construction account up to about \$620,000.

Of this, over \$100,000 have been put in the bridge over the channel of the Kentucky river, and which is built on the solid rocks which line that river.

This road has the *extraordinary* virtue, in these days, of having got along so far *without debts*. This virtue, however, seems to be less valued, than it ought to be. The great idea of the times seems to be, to get in debt as much as possible. But, if subscribers to a railroad stock ever should have confidence, it is in a road of this description, which, in the heart of a fertile country, and connecting with a great city, has been *made without debt*. About \$70,000 only of the \$100,000 pledged

in Cincinnati, has yet been obtained. We trust that in the great wealth and business of Cincinnati, this small amount may be readily got.

## NASHVILLE &amp; NORTH-WESTERN RAILROAD.

By an article in the Hickman *Argus*, we learn that the Nashville & North-Western Railroad is to terminate at Hickman, on the Mississippi. HICKMAN was formerly called "Mills Point," in the South-Western angle of Kentucky. It is in Fulton County, and a flourishing town. From this place to a point on the Ohio and Mobile Railroad, where the "North-Western" terminates, a short road called the "Hickman and Obian" was in course of construction. The two companies have now been consolidated, and the "North-Western" will now be continued directly to Hickman. We think this arrangement a wise one, and if the Company can command the means to finish the work, it will, in all probability, be a paying road; and give Nashville the most profitable commercial line she can have, for it will form a direct communication with the North-West and the Upper Mississippi.

## COVINGTON AND LEXINGTON R. R.

DEAR SIR.—Many persons in the interior of Kentucky, are anxious to know something about the present condition of the Covington and Lexington Railroad Company, but are without the means of informing themselves upon the subject. You would greatly oblige some of your subscribers, by publishing a statement of its resources and liabilities.

Yours, with A SUBSCRIBER.

Lexington, Nov. 19th, 1855.

[We publish the above, that it may elicit information. We know nothing, except what the Company have put in their Annual Reports. We shall, however, make a transcript of the material parts.]

## EAST TENNESSEE AND GEORGIA RAILROAD.

The Athens *Post* says that the New Board of Directors of the East Tennessee and Georgia Railroad met on Wednesday, and organized by unanimously re-electing Maj. C. Wallace, President; and Maj. R. C. Jackson, Secretary and Treasurer, and Superintendent of Transportation.

The following are the receipts for the first three months of the fiscal year

|                                                                                                        |             |
|--------------------------------------------------------------------------------------------------------|-------------|
| Receipts for first quarter, (July, August, and September,) from Freights, Passengers and Mail pay..... | \$54,023 61 |
| Corresponding months of 1854.....                                                                      | 25,097 31   |

Showing an increase of.....\$28,926 31 or about 116 per cent.

A corresponding increase over the balance of the preceding year, will swell the gross receipts to \$218,494 44. These figures show well for the success of the enterprise and the improvement and prosperity of the country it penetrates and taps.

## Correspondence.

## GRAND RAPIDS AND INDIANA R. R. CO.

STURGIS, MICH., Nov. 19, 1855.

EDITORS RAILROAD RECORD:

GENTLEMEN—In your note of last fall, you kindly requested me to let you know—occasionally of the progress of our new railroad enterprise, as we advanced.

The Grand Rapids and Indiana Railroad Co., was first organized under the general Railroad Laws of the State of Indiana, extending up to the north line of the State. And, during the last Summer, we organized a Company, extending the road from the State Line to Grand Rapids, in the State of Mich. These two are consolidated, and the line of the road extends from Grand Rapids to Fort Wayne—being 140 miles in length. If you will take the pains to look at any map of this country, you will see that Fort Wayne, Sturgis, Kalamazoo, and Grand Rapids are nearly on an air line from Cincinnati. It is intended to extend the road to Mackinaw as soon as practicable, *via*. Newago and Grand Traverse Bay.

This is a very good and direct route from Cincinnati to Mackinaw. It is not quite as near an *air line* as might be formed. But I think it preferable to any other, for the following, among other reasons:—The *general excellence of the soil* on the western slope of the State of Michigan, over either the central portion or the eastern slope of the State. The *advanced state of improvements* of the west side over either the central portion or the eastern side of the State. This line passes through a large number of the richest and best improved *prairies* in the State. *Grand Rapids* is one of the best inland towns of the State, containing a population of over 7,000. North of Grand Rapids, along the shore of Lake Michigan, the country is *now being settled with great rapidity*. This line will be only a very little longer than an *air line* from Fort Wayne or Cincinnati to Mackinaw, and *before it reaches Mackinaw*, it will have the advantage of a considerable *lake business* at Grand Rapids, Newago, and Grand Traverse Bay, while no navigable stream would be crossed by a central route. This lake business will be of great importance to the railroad, for there are now two daily steam-boat arrivals at Grand Rapids, without any railroad outlet from that point. From the south we reach *Pine Timber* sooner on this route, than any other by probably *fifty miles*; for we find it on this line only *forty miles* north of the Indiana State Line, and after that we find inexhaustible groves of pine its whole length. And at Grand Rapids is found in inexhaustible quarries, gypsum or plaster, of a superior quality, none of which is in either the central or eastern portions of the State.

The connections of this line are very ad-



vantageous. At Fort Wayne, the southern terminus, there is a direct connection with Cincinnati by the Cincinnati, Union and Fort Wayne Railroad, and also with Louisville by the Fort Wayne & Southern Railroad. The cars are now running from Fort Wayne to Philadelphia. The various railroad lines branching off from Cincinnati and Louisville to every portion of the southern country, will give all the connections desirable in that direction.

The line from Sturgis, in Michigan, to Rome, in Indiana, a distance of 22 miles, is located. The *earthwork* and *bridging* from Sturgis to La Grange, near 12 miles, are let to contractors—and the work nearly done. This cost less than \$4,000, per mile.

The *earthwork* and *bridging* from La Grange to Northport, 10 miles, will soon be put under contract.

The line from Otsego, to a point near Grand Rapids, 30 miles, is located, and the *earthwork* and *bridging* let to contractors, for less than \$6,000, per mile. The work on this division will be commenced in a few days.

The portion of the line from Otsego to the Michigan Central Railroad, a distance of 15 miles, will be located and put under contract in a few weeks.

It is intended to have the entire line located, and the greater part of it put under contract during this fall, and the coming winter.

The means of the Company consists in \$421,000, good and available subscriptions, now on the books in the office, and some \$65,000 more on the subscription books, in the hands of stock solicitors, which have not yet been returned, and which makes \$486,000. With a fair prospect of increasing that amount by next spring, to a sum sufficient to complete the road-bed in readiness for the iron.

It is intended to prepare the road-bed for the iron, including cattle guards, wood-crossings, right of way, and ties by local subscriptions, so as to go into market for iron and other equipments, clear of all *domestic* and *floating debts*.

Respectfully Yours, J. L.

**SUGAR CULTURE OF LOUISIANA.**—The growth and magnitude of the sugar culture in Louisiana, may be illustrated by taking the aggregate of each *five years*, during the last twenty, and comparing them:

|                                    |              |
|------------------------------------|--------------|
| From 1834 to 1839.....             | 350,000 hhd. |
| From 1839 to 1844.....             | 617,000 "    |
| From 1844 to 1849.....             | 1,034,573 "  |
| From 1849 to 1854 (inclusive)..... | 1,563,633 "  |

This shows a growth in each period of 75 per cent., 40 per cent., and 50 per cent.

The sugar culture of Louisiana and Texas is now increasing at the rate of ten per cent. per annum, and the annual crop after this will scarcely be less than 500,000 hogsheads per annum.

## Railroads.

### WESTERN AND ATLANTIC RAILROAD.

Of the prospects of the road Major Cooper says:

If ever there was reasonable question of its success, it cannot be doubted now that it is realizing the high destiny for which it was projected. It is developing itself as the Great Main Trunk through which the West finds its outlet to the South Atlantic, and every year opens some new tributary to enrich its treasury, strengthen its position and perpetuate its value.

Concentrating upon its Northern terminus the trade and travel of which Nashville and Memphis are the central marts, receiving at Dalton another tributary line from the Eastern cities, and connecting at Atlanta with the radiating system of railroads which rest upon Charleston, Savannah and Montgomery, how commanding is its position! and how defiant of all rivalry it towers up as a bright monument to the enterprize of Georgia.

The chain of railroads from Dalton through East Tennessee and the Valley of Virginia will be completed early in 1857. This connection will open a new avenue from which the road must derive a considerable accession of travel. The great mail between New Orleans and the Northern cities will then be transferred to this road, and passengers will take it also as the most economical, expeditious and agreeable route between the North and the South.

About the same time we may look for the completion of the Memphis and Charleston Railroad, which will open a direct connection with the Mississippi river, and with the highly productive and populous country through which it runs. As this improvement will open such easy access to the markets of Memphis and New Orleans, serious question has arisen as to whether its effects will be felt beneficially in this direction, but as the completion of the road will establish this as a component part of the shortest line between the Mississippi and the Sea, it must result in a large gain of passengers and upward freight or merchandise.

Highly estimating the importance and economy of placing and keeping the road in such permanent good condition, that it might be relied upon as a certain source of steady and increasing profit, great pains have been bestowed upon the maintenance of the superstructure, and it is now in good repair. Pursuing the established policy of gradually substituting heavy rails for the light track heretofore in use, an importation of one thousand six hundred tons of T rails weighing fifty-eight pounds to the lineal yard, has been effected at a cost of \$50 per ton, delivered in Savannah. This purchase was made at a decline of fully \$20 per ton from the rates prevailing two years since, and about \$10 per ton lower than present quotations. About one mile of this iron has been laid from Kingston east to replace rails of the U pattern badly worn, and the remainder will be put in the road west of Resaca in place of the Flange rail, so by the 1st. February next, there will be a continuous cross-tie track from Atlanta to Dalton.

During the past year about two miles of additional turn out tracks have been laid at Atlanta, Vining's Portage, Etowah, Cass, Chicamauga, and Boyce; and turning tables

have been put in at Cartersville and Ringgold.

A new bridge and trestle work have been built over Etowah River and Valley. Chatahoochee bridge has been covered with a tin roof, and the bridging generally is in good repair.

### THE POLICY OF THE ROAD.

There are those, who, not seeming to appreciate the magnitude of its external, the relations prepared to contend that the policy of the Road should be so shaped as to foster the local at the expense of the "through" business. Turning to the Freight Tables, you will see that the aggregate of Earnings from local freight last year was \$98,922 67, while the through freights reach the sum of \$394,457 27, from which it would seem, that, as measured by dollars and cents, the through business presents by far the higher claim for attention.

### LITIGATION.

Under this head there is nothing favorable to report, indeed so disastrous has been our experience under the inflictions of the law, that we have learned to dread litigation as the only serious impediment to success. Your revenue may recover from the decimating effect of famine, the road can conquer the ravages of fire, if prudence and foresight do not prevent a casualty, application and energy with repair all damage, but when a luckless corporation is subjected to the judgment of the law, as recently administered to us, it has encountered an adversary whose depredations will exceed the limits of the worst forebodings, vigilance will not avert the danger; and no expedient will avail to retrieve the injury short of a depleted Treasury.

[From the St. Louis Republican.]

### SOUTHERN PACIFIC RAILROAD—THE PROSPECT OF GETTING WATER ON THE PLAINS IMPROVED.

The idea generally entertained that the immense arid plains lying between the Mississippi and Rocky Mountains must remain forever unsettled and uncultivated on account of the scarcity of water and fuel, is likely to undergo a change. Scientific men are now exploring these plains, or prairies, and from the little we hear of their researches, the prospect appears good that an abundance of coal and water can be obtained at a small outlay of money and labor. Successful experiments have been made in testing the practicability of boring Artesian wells, and the result is more satisfactory. In one instance, near the Pecos River, about the thirty-second parallel, at the depth of six hundred and thirty feet, the greatest abundance of perfectly pure water was obtained. Besides this, the operation developed the existence of coal beds, easily accessible, and, as far as the experiments have progressed, evidently underlying the whole of that immense country.

The importance of this discovery will at once be apparent. If rivers cannot be created by these wells, water sufficient may be obtained for all the purposes of irrigation, and thus the plains may become as thickly inhabited, and the land rendered as productive as any other portion of our country. With plenty of coal for fuel, the want of timber will hardly keep back the pioneer; for the materials for building are too numerous to admit of such a supposition. The thorn will, doubtless, grow as well there as here, and live hedges, even in sections where forests are abundant, are now adopted by the farmer.



The expedition for making these observations and experiments on the great Western prairies was sent out by the Government, only a short time since, and it certainly may be considered, with the success which has attended the experiment, as one of the most important that has been commissioned. Millions of acres of the best lands will thus be opened up to agricultural enterprise, and the country lying between the Mississippi and the Rocky Mountains, instead of remaining a desert waste, doomed to solitude and barrenness, will become settled with an energetic population, and pour its rich products into the lap of commerce.

#### LOST BAGGAGE ON THE NEW-YORK CENTRAL RAILROAD.

Suppose that a young—say very young—gentleman, a little behind time at his breakfast at a hotel in Buffalo, is in a flurry when he pays his bill, and in more of a flurry when he gives his trunk in charge of the porter, with instructions to have it checked for Piermont on the New York and Erie road. Time presses—other gentlemen and women not a few, are also in a flurry—the porter, overworked and distracted with a cross firing of inquiries and orders, assigns in his own mind Pembroke as a stopping place for that trunk instead of Piermont. Its hurried owner, without a check for his baggage, and with a vague sense of error oppressing him, steps into the last car of the New-York and Erie train, just as it moves off on time—and is parted from his raiment. To call that youth wretched as he tosses sleepless and in short linen in his bed in Piermont, is to use mild language.

The morning will probably see him retracing his steps, with a view to a season of anxious inquiry with the porter of that Buffalo hotel. If he happens to know the custom of the New York Central with respect to lost and unclaimed baggage, he will stay where he is, and simply write a letter to the superintendent of the road, describing his baggage and asking him if he has got it. Within six days of its loss that official will be sure to have it, if it went to Pembroke. It will come from that station after waiting five days for its owner, to Albany, bearing a large card upon it, inscribed: "N. Y. Central R. R. Unclaimed baggage. Left at Pembroke July 4, 1855. For stray baggage room, Albany."

This room is under the care of a clerk and porter specially assigned to the duty. That Pembroke estray is taken to it, and immediately numbered. A register is then opened and the number is entered in it, with a date and the name of the station from which it was received, and the trunk is opened. Its contents are carefully examined, and full entries are made of all the facts it discloses pointing to its ownership. Its color and general external character were noted at the time the number was entered. If russet, the trunk is then placed on top of a pile of russet baggage, solemnly waiting ownership in a large store-room. If black, it is added to a pile of dusky baggage, over which hands have been wrung and tears shed—say rather over the images and remembrance of which—for those trunks were not, when linen, silk and dimity were wanted from within their recesses. Along side of the black baggage is a sad pile of hair trunks, each numbered conspicuously. Next to these is a suggestive row of emigrants chests. Among the blue and yellow shipping pasters, put on in Sweden, Holland, Germany, France, Norway and England, shines the big

white card of the Central road, with the registered number painted on it. These chests have all been entered, defiant of lock-smiths as they look and their strange and fanciful, their valuable and their worthless contents, noted, and subjected to inquiry to reveal their owners names. Gold and silver coin are in some—heirlooms, keepsakes, love letters, kitchen utensils—everything that an emigrant from the old world to the new can possible keep in a chest, is there. The record of all is also there—on the register. Way off in Iowa, Minnesota and Wisconsin, men and women of Scandinavian extraction, speak feelingly now of the losses of those chests. Their blue eyes doubtless have moistened at the recollection of their inclosed household wealth, such time as the circumstances of their poor homes in the wilderness straightened them for the want of that baggage, "lost and unclaimed" upon the great Central railroad. Carpet bags and satchels, all numbered and hung in orderly succession upon hooks depend from above and await reclamation. In a room apart from these, is the unclaimed bedding of emigrants, and "movers." Policy and humanity indicate, that this should be distributed to the poor on the very first snow-storm.

The discipline of the road is severe with respect to lost and unclaimed baggage. Printed circulars have been sent to all the station agents on the line, requiring them to report to the office at Albany all parcels unclaimed for the period of twenty-four hours; also to forward to Albany all luggage unclaimed for the period of five days. Violations of these instructions are followed by a discharge from the road. Every day brings into the baggage department of the central office reports from station agents all over the line, containing a statement of baggage "unclaimed or not called for;" also, "lost or wanted at this station." These reports contain the number of the check on the parcel, a description of the parcel, the place it came from, and the name of the baggage man who delivered it. A register of these reports is kept at the central office, which also shows the final disposition made of the baggage—whether it was sent here or there on the road to its owner, or was put in store in the lost baggage room. From there the clerk having charge of the register can order it out any moment, to the proper claimant. The station agents are also required to report daily all cases of delivery by them of claimed baggage at the stations if any shall take place between the interval of their first report and the sixth day after the baggage was left with them. Printed blanks for these reports in the hands of the agents, and these officials are inexorably required to live up to this strict discipline of the road in its care of the lost property of travellers.

The lost baggage room and the register kept in it are both sealed to the public, and for obvious reasons. Every article in them if subjected to examination, and so to identification upon false claims, would be lied out of the company's custody in a short time. As it is there is a great deal of fraud attempted upon the road. Baggage is paid for that never was lost, or never came into the company's possession, and claims for indemnification are frequently excessive where the loss has actually happened, and often are urged upon fraudulent pretences.

So perfect is the system on the Central road, that within thirty six hours after a trunk is lost, or erroneously left at any one of its

seventy one stations between the Hudson River and Lake Erie, full knowledge of it is had at the central office in Albany, and the superintendent in a condition to direct it to its owner if he can be found. Under the rules of the road regulating the lost and unclaimed baggage branch of its business, mismatching checks is an offense. So is the putting of a trunk into a car before it is marked with its place of destination. So is the neglect to enter in a book all checked baggage, and a description of unchecked, with its destination, the train by which it goes, and the names of the baggage men receiving it. For the comfort of the nervous and careful, we will add, that a law of the road makes the handling of trunks "in a rough and improper manner," a misdemeanor so grave as to be prohibited under the penalty of discharge from service.—*Albany Evening Journal.*

#### ENGLAND AND FRANCE—THE SUBMARINE RAILWAY.

We have already alluded to this great enterprise. Its projector is M. Lefavre, a distinguished French engineer. His project consists of a tunnel about 30 kilometres in length, to be constructed under the sea, and to afford as much security as a railway under the open sky.

1. The tunnel will be pierced in a manner so that the bed of earth which will divide it from the sea will never be less than 25 metres, even at the greatest depth of the Straits.

3. The tunnel will be lined with a double arch, the first to be of granite and of impermeable cement, the second of thin iron plate, pierced in different places, in order to discover the least filtration.

The difficulties which appear insurmountable in a work of this kind consist not only in the extent of the tunnel, in tediousness of the operations—which, however, can be undertaken at both ends at the same time—but also in the clearance of the debris, which would seemingly have to be carried to the opening at either side.

"In order to surmount these obstacles, we have established in our project 'wells,' constructed at different parts of the Channel, which will afford the means of casting the encumbering earth into the sea, and of forming little islands around these wells. With these wells we can give to the works that celerity with which it is so desirable to carry them on; we can also ventilate the tunnel, and create islets along the coast. With the aid of this system it would only take five years to complete this tunnel."

The cost is calculated at 100,000,000 of francs. It is estimated that it will pay, inasmuch as 200,000 persons travel annually between the two countries, and the quantity of coal alone that will be imported for consumption in France will reach 20,000,000 quintals, at a cost of as many million francs. M. le Favre is not for making the course of the tunnel in a direct line from Cape Gris Nez to Dover, and for traction either steam may be employed, with the aid of such machinery as would prevent the formation of smoke, or the trains may be propelled on the atmospheric principle. The project, it is stated, has been received everywhere with the most lively sympathies, and an Anglo-French company will shortly be organized to carry it out.—*Phil. Enquirer.*



**WHAT RAILROADS DO FOR FARMERS.**—The following paragraph from the Athens (Tenn.) Post shows what railways do for farmers. The farmers of the three counties named derive a clear profit this year alone on the single article of wheat of more than \$200,000 from the railway. Their 400,000 bushels of wheat sell for \$200,000 more than it would have realized if there had been no railway to take it off:

"Wheat.—The price continues at \$1. One hundred and nineteen wagons unloaded at the depot here on Thursday, the 6th. This county will export, of the late yield of the harvest, one hundred and sixty thousand bushels. Other counties along the line of the railroad will perhaps do as well. The three counties of Brady, McMinn, and Monroe, from the information now in our possession, we have no doubt will sell for export over 400,000 bushels, at an average of one dollar per bushel. Here, then, is the snug sum of between four and five hundred thousand dollars diffused among the people of these counties for the single article of wheat alone, the product of a single harvest. How much wheat did these same counties export before the railroad was built, and at what price? Not more than twenty-five thousand bushels, and that small amount was sold at an average of fifty cents per bushel. In the mean while lands have quadrupled in value, and the owners have actually become rich by enhancement, almost without an effort of their own."

**RACINE AND MISSISSIPPI RAILROAD.**—The *Elkhorn Independent* says:

The road is finished some three or four miles this side of the river at Burlington, and is progressing as fast as men can complete it. The contractors still insist that it will be finished to this place by the first of January.

There has been landed at this place during the past week about 500 tons of rails for this Company, and there are 950 tons on the lake which will probably arrive the latter part of this week or the fore part of next week.

The Company have a new locomotive called the *Elkhorn*, which has arrived at Chicago, and will be at work on the road in a few days; also two new passenger cars, which will be here next week.

The earnings of the road exceed the most sanguine expectations of its friends. With only one passenger car, and no station houses and no freight depots ready for use on the line, the earnings on the 26 miles in operation exceed \$1500 per week. The freight depot in this city is going up rapidly; about 100 feet of the north end is up, and the balance going forward as fast as men can do the work.

The freight depots and station houses on the line are also in process of erection, and will be ready for use in a short time.—*Racine Advocate*.

**CHICAGO, ST. PAUL AND FOND DU LAC RAILROAD.**—The Directors of this road are pushing forward the work with all possible energy. We have been informed that subscriptions have been recently received as follows:

|                  |           |
|------------------|-----------|
| Fond du Lac..... | \$200,000 |
| Janesville.....  | 251,000   |
| Juneau.....      | 25,000    |
| Total.....       | \$476,000 |

It is also expected that Watertown, Jefferson, Fort Atkinson and State Line will subscribe upwards of \$350,000.

There are now fifty miles of the road in operation, and there is iron in this city for fifty miles more.—*Dem. Press*.

**PLATTE COUNTRY RAILROAD.**—It will be recollected that a meeting was held at Sidney, in the western part of Iowa, on the 4th of July last, to deliberate on the subject of building what is called the Platte Country Railroad, intended to connect St. Joseph with Council Bluffs.

That Convention adjourned to meet again at St. Joseph, in accordance with which it came together, in the latter city, on the 5th inst. Resolutions were adopted, declaring the necessity for the completion of the road as soon as possible, from St. Joseph to the Iowa line—urging Congress to grant lands in aid of the enterprise, and the Missouri Legislature to assist it in a manner that may seem to it most proper—and requesting the County Courts of the counties along the line to subscribe to the stock. All the stock necessary to give the road a legal existence, has been subscribed.

This enterprise is one in which the people of Western Missouri and Iowa as well as the people of Nebraska feel a great interest, and a sense of the necessity existing for its consummation, as well as an appreciation of the advantages that will result from it, prompt them to use every effort for its success. They are moving in the matter heartily and earnestly, and though the work is a gigantic one, it is not impracticable when we reflect on the wants of the immense population, which, in a few years, will find a home along the valley of the Missouri, in Missouri, Iowa and Nebraska.—*St. Louis Intelligencer*.

**HE LIKED HIS SEAT.**—The way a man suffers every problem, great or small, to himself and his own convenience, for a solution, is often amusing. One of this sort of people had ensconced himself in a seat in a railway car next the stove, where for hours he sat toasting his feet, and basking in the genial heat of a fire, scarcely large enough for the comfort of the passengers who occupied seats remote from the anthracite. By and by, up comes a gentleman with a lady, and says, in the blandest manner:

"Wouldn't you like to exchange seats with this lady?"

"No, thank'e," said the old fellow, with an awkward bow, "no, thank'e—I'm 'bleeged to you—but I like this seat amazin' well."

**SHARPENING EDGED TOOLS.**—"It has long been known that the simplest method of sharpening a razor is to put it for half an hour in water to which has been added one-twentieth of its weight of muriatic or sulphuric acid, then lightly wipe it off, and after a few hours set it on a hone. The acid here supplies the place of a whetstone by corroding the whole surface uniformly, so that nothing further but a smooth polish is necessary. The process never injures good blades, while badly hardened ones are frequently improved by it, although the cause of such improvement remains unexplained.

"Of late this process has been applied to many other cutting implements. The workman at the beginning of his noon-spell, or when he leaves off in the evening, moistens the blades of his tools with water acidified as above, the cost of which is almost nothing. This saves the consumption of time and labor in whetting, which moreover speedily wears out the blades. The mode of sharpening here indicated would be found especially advantageous for sickles and scythes."

## Miscellaneous and Mechanical.

**PAPER PLANT.**—Under this head the *Mineral Point Tribune* publishes an account of a newly discovered plant from a Mrs. Beaumont, of Arena, as follows:

"I discovered two years ago a plant that yields both cotton and flax from the same root, and I believe that I am the first person that ever cultivated, spun, and knit from it. I am persuaded that any article that will make as good cloth as can be made from this plant, will make good paper; hence I call it the paper plant. It can be planted in the spring, and cut in the fall or winter. It bleaches itself white as it stands, and will yield at least three or four tons to the acre.

"From a single root that I transplanted last spring, there grew twenty large stalks, with three hundred and twenty pods (containing the cotton) with at least sixty seeds in each. From this root I obtained seven ounces of pure cotton, and over half a pound of flax. It is a very heavy plant and grows from six to seven feet high."

The *Tribune* adds that it has seen several samples of the cotton and flax, prepared from this plant, by Mrs. Beaumont, and thinks that for the manufacture of paper it will prove better and cheaper than any other known article.

**THE POPULATION OF RUSSIA.**—According to an official report on the census of 1851, by Mr. Peter de Koppen, of St. Petersburg, the population of Russia has, in the period of 130 years, quintupled its original number. In 1720 Peter the Great ordered the first census to be taken, and since that time seven others have followed. We give here the results of the same:

|                                             |            |
|---------------------------------------------|------------|
| 1722.....                                   | 14,000,000 |
| 1742.....                                   | 16,000,000 |
| 1762.....                                   | 19,000,000 |
| 1782.....                                   | 28,000,000 |
| 1796.....                                   | 36,000,000 |
| 1815.....                                   | 45,000,000 |
| 1835 (exclusive of Poland and Finland)..... | 56,000,000 |

In 1851 the result was as follows:

|                      | No. of sq. miles. | No. of inhabitants. | No. of inhabitants to each square mile. |
|----------------------|-------------------|---------------------|-----------------------------------------|
| European Russia..... | 2,309,877         | 60,098,821          | 26                                      |
| Asiatic ".....       | 5,697,939         | 5,660,768           | 1.3                                     |
| American ".....      | 626,688           | 54,000              | 0.08                                    |
| Total.....           | 8,634,504         | 65,213,589          | 7.5                                     |

Mr. de Koppen adds to this the Caucasian nations within the Russian borders, and amounting to about 1,500,000, which would bring the total number to 66,713,599. There are 34 cities with more than 20,000 inhabitants. St. Petersburg had, in 1852, 532,241; Moscow, in 1850, 373,800; Warsaw, in 1847, 167,000; and Sebastopol, in 1842, 41,155.—*State Sentinel*.

**CAPITAL STOCK OF THE NEW INDIANA STATE BANK.**—The following is the maximum to which the capital stock of each branch may be increased, when authorized to receive additional subscriptions:

|                        |           |                       |           |
|------------------------|-----------|-----------------------|-----------|
| 1. New Albany.....     | \$400,000 | 10. Plymouth.....     | \$200,000 |
| 2. Jeffersonville..... | 300,000   | 11. Lima.....         | 100,000   |
| 3. Madison.....        | 400,000   | 12. Indianapolis..... | 500,000   |
| 4. Vincennes.....      | 250,000   | 13. Rushville.....    | 200,000   |
| 5. Terre-Haute.....    | 350,000   | 14. Bedford.....      | 200,000   |
| 6. Lafayette.....      | 400,000   | 15. Connersville..... | 250,000   |
| 7. South Bend.....     | 250,000   | 16. Fort Wayne.....   | 250,000   |
| 8. Logansport.....     | 200,000   | 17. Richmond.....     | 250,000   |
| 9. Laporte.....        | 500,000   |                       |           |



## THE LONDON TIMES.

The *London Quarterly Review* for July, in an article on advertisements, contains some interesting information respecting the *London Times*. We make the following extract, reducing sterling to our currency, where pecuniary amounts are named, at the rate of four shillings to the dollar:

They show in the editor's room, says the article, a singular diagram, which indicates by an irregular line the circulation day by day and year by year. On this sheet the gusts of political feeling and the pressure of popular excitement are as minutely indicated as the force and direction of the wind are shown by the self-registering apparatus in Lloyd's rooms. Thus we find that in the year 1845 it ran along at a pretty nearly dead level of 23,000 copies daily. In 1846—for one day, the 28th of January, that on which the report of Sir Robert Peel's statement respecting the corn laws appeared—it rose in a towering peak to a height of 51,000, and then fell again to its old number. It began the year 1848 with 29,800, and rose to 43,000 on the 29th of February, the morrow of the French revolution. In 1852 its level at starting was 36,000, and it attained to the highest point it has touched on the 19th of November, the day of the Memoir of the Great Duke, when 69,000 copies were sold. In January, 1853, the level had risen to 40,000; and at the commencement of the present year it stood at 58,000, a circulation which has since increased to 69,000 copies daily! Notwithstanding all the disturbing causes which make the line of its circulation present the appearance of hill and dale, sometimes rising into Alp-like elevations, its ordinary level at the beginning of each year, for some ten years, constantly goes on advancing, inasmuch that within ten years its circulation has more than doubled by 7,000 daily.

In the year 1854, when the railway mania was at its height, the *Times* advertising sheet was overrun with projected lines, and many a guess was made, we remember, at the time, as to their probable value; but high as the estimates generally were, they came far short of the truth. We give the cash credit returns of advertisements of all kinds for nine weeks:

|               |             |
|---------------|-------------|
| Sept. 6.....  | \$14,198 75 |
| Sept. 13..... | 18,913 06   |
| Sept. 20..... | 19,678 70   |
| Sept. 27..... | 21,466 55   |
| Oct. 4.....   | 31,591 80   |
| Oct. 11.....  | 32,710 96   |
| Oct. 18.....  | 33,426 27   |
| Oct. 25.....  | 30,124 25   |
| Nov. 1.....   | 16,159 07   |

During the greater part of the time that the proprietors were reaping this splendid harvest from the infatuation of the people, the heaviest guns were daily brought from the leading columns upon bubbles which rose up so thickly in the advertising sheet. The effect of their fire may be assured by the falling off of nearly fifteen thousand dollars in the returns for a single week.

As to the receipts of the *Times* for sales of the paper at its present rate of circulation, 60,000 a day, the price of each paper being 5d. they amount to \$21,000. Taking its average receipts for advertisements at \$15,000 per week, its total yearly receipts would amount to \$1,892,000. In Hunt's "Fourth Estate," if our recollection serves us, the yearly expenses of conducting the *Thunderer*, exclusive of course, of such addition as an event like the present may cause, is stated to be \$400,000.

## ENGLISH AND AMERICAN RAILWAY IRON.

We have done something to call the attention of our railway managers to the miserable character of the later importations of English rails, and to point out the good policy of paying a much larger per centage of cost, if thereby rails of a decidedly good character can be obtained. The results obtained upon the Philadelphia and Reading road, where there is a greater tonnage transported annually over the rails than upon any other road in this country, demonstrated the greater value of American rails in all the great requisites of strength and longevity. Let it not be forgotten, too, in using the American rail we are fostering and building up our own manufactures, keeping our money in the country, and thereby contributing something to strengthen our commercial arms in the great contest which our manufactures must have with foreign capital and labor. A correspondent of the *R. R. Advocate* gives some facts connected with the value of the English and American rails, which are important. He says:

The character of the iron in rails is, of course, an object of great importance. Their duration makes a vast difference in the annual expenses of a road, and the annual dividends. The prime cost should be regulated entirely by the value of the material purchased. But how often is this thought of, partly from ignorance of the purchaser, who knows nothing of the value of qualities of iron, and partly from the recklessness already alluded to. Let us examine into the character of railroad iron and its manufacture.

The countries most largely interested in making rails are England and the United States. The material is different, and can be compared with each other. First, then, the English rail. In former years, their rails were made from a warm blast coke pig, run out in a finery fire to remove the dross, then puddled, rolled into muck bar, cut, piled, and rolled again into bar; these bars were then cut, piled and rolled into rail. This made a very superior iron, as all know who have had rails imported fifteen or twenty years back; but the demand increasing, they began to place only the refined bar for the top and bottoms, and the rail was of less value—such as the importations from '46, ten years back. The starting of rail mills under the tariff of 1842, in the United States, caused this depreciation in quality, that the American mills might be forced to stop by the lower prices of the English iron, but failing in this, coupled with the enormous demand for a few years back, they further depreciate the quality of the rails by abandoning the run out fire (a process of great value in improving the quality of their pig,) and making their tops and bottoms of iron, cut and piled from the muck bar made from a very hot blast raw coke pig, while their centres were from the muck bar. But they did not stop here, for they yet further injure their pig by often using the raw coal, and by mixing with their ores in the blast furnace—the refuse scoria and cinders from the rolls and heating furnaces, yielding, thereby, the veriest trash with the appearance of iron.

Many of the mills do not even re-roll their tops and bottoms, but the whole rail is made from this impure iron, mixed with all the dirt, silica and impurities of a bad pig. This is the kind of rail our country has been flooded with for the last six or seven years. Is it any wonder, then, that rails break, exfoliate, and require renewal every two to three years under a heavy trade.

The American rail is made, in the first place, almost entirely from anthracite pig iron, which even in Wales, where they have a few anthracite furnaces, is worth \$5 per ton more than their coke pig, making a difference in the cost to them, if they used anthracite pig exclusively, of some \$8 per ton of rails. Our tops and bot-

oms are always made of refined iron, and no furnace uses the scoria and cinders. Now can it be expected that American rails can be made out of such materials and with so much working, at the same cost as the trash of England. But what is the result of experience with American rails made at our best works, say, for one instance. Take rails, made by Reeves, Buck & Co., at Phoenixville and Safe Harbor. There is the Pennsylvania Railroad, from Harrisburg to Pittsburg laid with rails of their manufacture. Some of which have been laid 6 years and over, which a heavy tonnage has yearly passed. The renewals of rails on that 250 miles of road, are scarcely an item, whereas, if that road had been laid with an English rail imported within the last years, at least 40 per cent. would have been renewed. If this is doubted, take the statement of the Western Railroad, that their average of rails is, I think, 10 years, (and this is founded on experience and using, to arrive at the result, some rails imported 10 to 12 years ago, when a better article of rail was made.) The Cleveland, Cincinnati and Ashtabula Railroad, with its able Superintendent, L. Tilton, reporting the duration of their rails, with the light tonnage of that road at 8 years. The Eastern Railroad has renewed rails that had not been laid over 2 years. But every one conversant with railroads knows and appreciates the fact, that American rails will last at least 50 per cent. longer, or in other words, will bear the transportation of 50 per cent. more tonnage than the best English rail now made. The saving to each company would be enormous, by using the American rail exclusively in the item of wear. Every railroad officer can calculate for his own road.

Here there has been another instance of gross mismanagement on the part of our railway directors—in purchasing an article on account of its low price, when compared with another article, which, at a small additional cost, would give at least 50 per cent. more service, and astonishing to write, such is the extent of the mania for building railroads, that men who have held high positions of trust and honor, are willing to sacrifice the American rail to the poor rotten rail of England, and this by removing the slight duty that now exists. It can only be accounted for, as has been previously done in this article, by the charitable construction of ignorance. Of the few this may be true, of the many it is a corruption at the heart—the effort of speculators, whose only thought is their own interest, regardless of the welfare of the people at large; and we invoke the efforts of every one lively interested in the successful prosecution of the railway system in our country, to place the stamp of their disapprobation on such efforts, and to teach such men that though their country may have honored them by seats in its high councils, yet it was because they were then pure, or thought to be so, and the influence thus gained cannot be prostituted to the base purpose of inflicting a serious and lasting injury on the community, for their peculiar pecuniary emolument.—*American Railway Times*.

GRAPE CULTURE IN MISSOURI.—We find the following facts stated in the *Western Journal*:

|                                          |             |
|------------------------------------------|-------------|
| In Gasconade County, Vines.....          | 500 acres.  |
| In St. Genevieve and other counties..... | 250 "       |
| Aggregate.....                           | 750 "       |
| Wine produced per acre.....              | 300 gallons |
| Total amount of Wine.....                | 225,000 "   |
| Value per gallon.....                    | \$1 25      |
| Total Value.....                         | \$280,000   |

This, already, makes a large item in horticultural production, and there can be no doubt it will be greatly increased.

Western Virginia seedling is there considered as valuable as the Catawba.











## THE SCHENCK MACHINERY DEPOT AND Leather Banding Manufactory, No. 163 GREENWICH STREET, NEW-YORK,

KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

### Oak-tanned Leather Belting,

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR

Aug. 9 ly

D. D. MILLER,  
Manufacturer of

LOCOMOTIVE, RAILROAD AND HAND  
LANTERNS,  
190 Water Street New York.

### THE MINING MAGAZINE.

IN the *Mining Magazine* for November is commenced the re-publication of the new and invaluable English work of WILLIAM TURAN, on "The Manufacture, Theoretically and Practically Considered," with all the large Plates of Furnaces and Machinery in operation. It is the only treatise on the subject, except Mushet's papers, originally published half a century ago. The contents embrace descriptive details of the Ores, Fuels, and Fluxes, employed; the preliminary operation of Calcination; the Blast, Refining, Puddling, and Rolling Furnaces, Engines and Machinery; and the various processes in union; statements of quantities of material; period of time and amount of power consumed in the successive stages; cost of raising materials, and manufacturing crude and finished iron; and analytical researches into the causes affecting the Economy of Fuel in Blast Furnaces, &c., &c.

There are Twenty-Three Plates, all of which will be executed in the best style, and accompany the Text. The *Mining Magazine* is published monthly at \$5.00 a year. Each number contains from one hundred to one hundred and twenty pages, octavo, and is devoted to every department of Mining and Metallurgy. The fifth volume ends December 1855. The work of Turan would be completed in about twelve numbers of the Magazine. Its cost alone is nearly triple the subscription price of the Magazine.

In the December number commences the re-publication of the great work of POSSON on COAL MINING, translated from the French expressly for the Magazine, with all the splendid plates which accompany that work. It is one of the most important publications in regard to Practical Coal Mining knowledge. Its contents are briefly as follows: Chapter 1.—Practical Remarks on the Geology of Coal Regions—Formation of Hanging Strata—Search for Coal by Boring, &c. Chapter 2.—Means of Exploring Coal Strata by Levels—Shafts—their Working, Supporting, Restraining Water, &c. Chapter 3.—Natural and Artificial Ventilation—Illumination—Burning of Coal Mines, &c. Chapter 4.—Mining Work and its Processes, with Examples from numerous districts. Belgium, France, Germany, England, &c. Chapter 5.—Hauling and Hoisting in Horizontal and Inclined Galleries, in Shafts, on the surface, &c.—Means of Ascending and Descending Mines, &c. Chapter 6.—Drainage—Restraining Surface Water by means of Dams, &c.—also Pumps—Connecting Rods— motive Machines, &c. Chapter 7.—Mining Economy—Materials—Tools—Work and Wages of Laborers—Estimated Costs of Mines, &c. Chapter 8.—Explanations of operations of Surveying in relation to Coal Mines, &c., &c.

The Plates are very numerous and expensive, all of which will be executed in the best lithographic style for the Magazine.

In adding these new features to the Magazine, the aim of the Editor is, to place within the reach of the Mining and Manufacturing Interests, at a cheap price, recent and most valuable information which is of such a costly nature as not to warrant its re-publication in this country as an independent enterprise. The price of Posson's work in the French is nearly \$40 00.

The Magazine also embraces in its pages translations from the German, on the "Dressing of Ores in the Hartz Mines;" and we have in course of preparation, with all the plates, the most valuable Treatise on Metallurgy, by KERR, two parts of which have been issued in Germany. In its usual contents, which will not be diminished, it comprises informations of Mines, Mining Operations, &c., in every part of the country.

This Circular is respectfully addressed to you with the hope that you will encourage this important enterprise by your patronage. Early attention is necessary to secure the series, as we shall not stereotype, or print more copies of the Magazine than are required by Subscribers. Address W. J. TENNEY,

Editor Mining Magazine,  
98 Broadway, New York.

November 22

### To Railroad Contractors.

SEALED proposals will be received at the office of the Edgfield and Kentucky Railroad Co., in Nashville, Tenn., until Saturday, Dec. 15th, 1855, for the construction of their Road, from Nashville to the Kentucky Line where it meets the Henderson & Nashville Railroad to Henderson on the Ohio River. The E. & K. Railroad is about forty-eight miles long, through a country well adapted to railroad construction, and the work will be divided into sections of about one mile each, which may be bid for separately or the whole road included in one proposition. Proposals may also be made to build the thirty miles only next to Nashville, either by single section or in one contract.

There are on the road, one tunnel half a mile long, heavy rock work at various points, and two large bridges. Maps, profiles and plans will be ready for examination by Dec. 1st, and any information may be obtained by addressing the undersigned.

SAM'L WATSON, President.

A. ANDERSON, Chief Engineer.

Nashville, Tenn., Oct. 20, 1855.

Nov. 1.

### Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m

New York, Aug. 16th, 1855.

## New Railroad Map.

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co., It is a fine map, printed on good paper, and is offered in four different shapes.

Plain Lithograph,.....\$0.50

Colored Boundaries,.....0.75

Backed with muslin and varnished ready

for moulding,.....1.50

Mounted,.....2.00

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers.

Railroad Companies wishing a large number to circulate with reports, or to supply their various offices, will be allowed a corresponding discount.

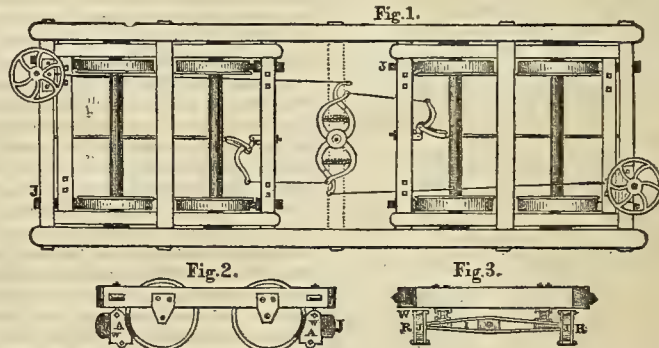
Orders addressed to

T. WRIGHTSON & CO.,

Publishers R. R. Record,  
167 Walnut St.,  
Cincinnati, Ohio.

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

We, the undersigned, hereby certify that we have seen the operation of a Railroad Car Brake, now in use on the Rutland and Burlington Railroad, invented by Mr. Lucius Paige, of Cavendish, in the State of Vermont, and are satisfied that it is the cheapest (taking into account repairs, &c.) and the best thing of the kind now in use.

JOHN S. DUNLAP, Supt. R. & B. R. R.

M. G. LITCHFIELD, Master Mechanic R. & B. R. R.

JOSIAH BOWTELL, Conductor R. & B. R. R.

A. W. WHITCOMB, Conductor R. & B. R. R.

SILAS L. PIERCE, Engineer R. & B. R. R.

E. WHITCOMB, Conductor R. & B. R. R.

P. R. DOWNER, Conductor R. & B. R. R.

J. F. STINSON, Road Master R. & B. R. R.

DANIEL ARMS, Conductor R. & B. R. R.

We, the undersigned, hereby certify that the Car Brake illustrated upon the preceding page, is now in use on the Lowell Railroad, and having made a satisfactory trial thereof, most fully accord to it a great superiority over any other Brake in use, embodying especially the advantages above set forth, and recommend it as being in all respects superior to any other.

June 15, 1855.

C. B. KING, Master of Machinery.

ENOCH HALE, Car Builder.

JARVIS CUSHING, Car Builder.

E. D. COLBY, Car Builder.

B. F. BAILEY, Car Builder.

WILLIAM SNELL, Car Builder.

EDWARD FOWLE, Car Builder.

WM. H. PETTINGELL, Depot Master.

DAVID R. KIRBY, Conductor.

P. A. PEAKSON, Machinist.

The names above signed are those of practical men in our machinery department. Mr. King being widely known for his skill and good judgement, and any addition from me appears to be superfluous—but at the request of the patentee or inventor, I can and do cheerfully say, that the mechanical features of his plan are such as make the Brake superior to most, and second to none with which I am acquainted.

Nov. 1.

WM. PARKER, Agent B. & L. R. R. Co.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.**

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,  
and their contents,**

**STEAMBOATS, BARGES,  
and their Cargos,**

**Manufacturing Establishments,**

**Railroad Depots and Station Houses,**

at current rates. **L. A. OSTROM,  
ag. 16. No. 6 West Third Street, Cincinnati.**

**RAILROAD IRON.**

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via. Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY, Quebec & Kingston, Canada.  
BERRY & WALKER, Liverpool, England.  
Kingston, C. W., Sept. 15, 1855.**



**T. N. RAFFINGTON,  
GENERAL ENGRAVER,**

North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
**CINCINNATI.**

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

**Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES**  
Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE  
ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**

**BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, &c., &c.**

Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
**GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.**

**MIDDLETON, WALLACE & CO.,**

**LITHOGRAPHERS & ENGRAVERS,**

No 115 Walnut St., Cincinnati.

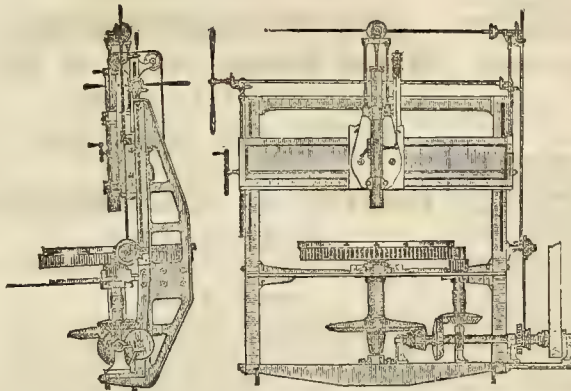
**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
Beautifully executed and at moderate rates.

**Maps, Portraits, Views of Buildings  
and Cities, Notes, Drafts, Bills  
of Exchange, Show Cards, &c.**  
Engraved in all styles and on short notice.

**NILES' WORKS.**

**FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well known class of

**ENGINEERS' & MACHINISTS' TOOLS,  
SHAFTING, GEARING,**

**PULLEYS, COUPLINGS,**

**BANCROFT'S PATENT SELF-ADJUSTING  
HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad  
and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Facto-  
ries, etc., etc.

**London Agency for Sale of Bonds &c.**

Messrs LANCE & Co., are making more generally  
known in England, the great advantages of American  
securities for investment.

During the present year Messrs Lance and Co. have  
disposed of a large amount of American and Canadian  
Railway Bonds, and are fast extending their connec-  
tions. They will be happy to correspond with parties  
having good American Securities for sale.

Messrs LANCE & Co. have had experience in the pur-  
chase and shipment of Iron, and offer their cooperation  
to those about to negotiate for the disposal of Bonds  
and the purchase of Rails.

P. S. Presidents of Railway Companies are requested  
to favor Messrs L. & Co. with Exhibits or Reports of  
their Companies as published.

10, Regent street, Waterloo Place, London,  
October, 1855. nov, 15-6m.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY.

**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines,  
2<sup>nd</sup> tons weight; 10 wheels, 6 drivers and truck  
Two of the Engines now ready for delivery, and four  
in the course of three months. Our Coal Burners are  
used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage)  
Pennsylvania Central; Manassas Gap & Orange & Al-  
exandria, Georges Creek Co.'s road, Central Ohio, and  
Ohio & Penna.; and for their durability and economy  
of repairs, and economy of fuel, we refer to the officers  
of the above roads.

Orders for freight or passenger engines deliverable on  
or after the first of December, solicited.

Address, **THATCHER PERKINS,  
President.**

Also, for sale, two Twenty Horse Power Stationary  
Engines. Aug. 9-41

**Railroad Printing.**

**WE** have now attached to this office an ex-  
tensive Composition and Press Room and  
Bindery, under the personal supervision of the  
proprietors of the RECORD. With confidence,  
therefore, we call the attention of RAILROAD OF-  
ficers and others to our extensive establishment,  
containing every facility for turning out superior  
work in any and every department of the PRINT-  
ING BUSINESS.

We are fully prepared to furnish Railroad and  
other Reports, with or without Maps or other Il-  
lustrations, gotten up at short notice and in supe-  
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to the wants of the various departments of the  
Railroad service, and to the wishes and tastes of  
the parties.

Also, Railroad Tickets and Conductors' Checks.  
Our patent Card Press, enables us to supply any  
demand at Short Notice and in Unequalled Style.

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or without Printed Headings, and bound in the  
most substantial manner.

With the numerous facilities for doing the Best  
Work, we feel no hesitancy in promising full sat-  
isfaction to all who may favor us with their or-  
ders.

**T. WRIGHTSON & CO.,  
Railroad Record Office, 167 Walnut St. Cin.**



## PERU & INDIANAPOLIS R. R.

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers.

Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Frtght. Agt.  
Indianapolis, October 1, 1855.

## THE KENTUCKY MILITARY INSTITUTE.

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

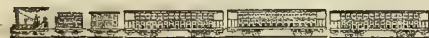
The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,  
President of the Board.

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

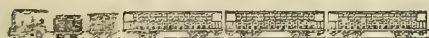
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1855. Sept. 29-1f.

## Terre Haute & Richmond R. R.



### Summer Arrangement.

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)  
Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 22 1/2 hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

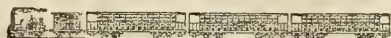
FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS IN OHIO.

Time as short to the Eastern Cities, as well as to Chicago and St. Louis, and Fare as Low as by any other Routes.



Great Miami, [C. H. & D.]

MAD RIVER AND LAKE ERIE,

CLEVELAND & TOLEDO,

AND

EATON & RICHMOND RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

### FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo and Chicago. (This train starts by Columbus time, which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

### SECOND TRAIN.

Indianapolis Express, at 6 A. M., for Indianapolis, and all points North and West.  
(This train also starts by Columbus time.)

### THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with steamer Bay City for Detroit; with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua.

### FOURTH TRAIN.

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

### FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

### SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

### SEVENTH TRAIN.

Hamilton Accommodation at 5.30 P. M.

RETURNING.—Trains leave Dayton as follows: at 4.50 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M.

LEAVE HAMILTON at 5.54, 6.45 and 9.00 A. M., and 12.30, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Sup't. C. H. & D. R. R.

E. F. OSBORN, Sup't. M. R. & L. E. R. R.

E. B. PHILLIPS, Sup't. C. & T. R. R.

D. M. MORROW, Sup't. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## IRON BOILER FLUES.

PASCAL IRON WORKS.

MORRIS, TASKER & MORRIS,

Manufacturers of

LAP-WELDED BOILER FLUES,

1 1/2 to 7 inches outside diameter, cut to definite lengths, as required.

WROUGHT IRON WELDED TUBES,

From 1/2 to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,

PHILADELPHIA.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON, AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,

LA FAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

Feb. 8-1y WnRRopeSute M MterODn i,pn

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

## GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,

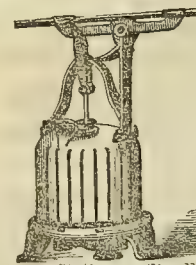
CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION & FORCE PUMP

AND

## Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

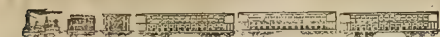
Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-1y



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character for the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,  
ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Columbus,  
Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED  
For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**  
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.  
WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
Baltimore.

je. 84

TO LOUISVILLE  
IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 10 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine No. 4, East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,  
Chief Engineer and Superintendent.

Omni-buses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-buses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, No. 2 Burnet House, only. W. S. BABCOCK,

Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of STEREOTYPING.

Including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cut, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

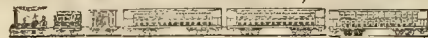
AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,

169 1-2 Vine Street, Cincinnati, O.

1855. New Arrangement, 1855

## COMMENCING MONDAY, JULY 16.

LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAID WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¼ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30¾ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburgh in.....   | 14 "      |
| To Philadelphia in..... | 30¾ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26¾ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2:30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## Covington and Lexington Railroad.

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terre Haute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

The EXPRESS TRAIN leaves the Covington Depot at 7:25 A. M., stopping at all regular stations, and arriving at Lexington at 12:15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6:45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryansville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

The ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11:30 A. M.

Returning, leaves Covington at 2:30 P. M., stopping as above, and arriving at Lexington at 7:40 P. M.

Freight Trains will leave the Depots in Covington and Lexington, daily, at 6:40 A. M.

## RATES OF FARE.

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cyathiana.....  | 2 00   |

## FOR THROUGH TICKETS

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent.

The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw. Madison and Scott, Covington.

CLAYTON &amp; GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road. nov.15\*

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at

4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.  
Office, foot of Main Street, corner of Water Street.

SIDNEY RICE,  
Cincinnati, Nov. 1, 1855. Agent.

**W. G. ATKINSON,**  
Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

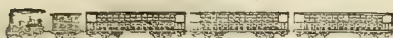
RAILROAD routes located, planned, and estimated. Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared. mar.14



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

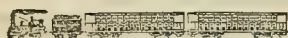
Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

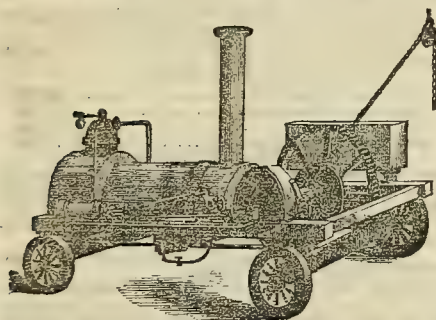
Communications or orders must be addressed to  
**OLMSTED, TENNY & PECK,**  
Louisville, Ky.

**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. **RICHARD NORRIS & SON.**

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

**A. L. ARCHAMBAULT,**

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

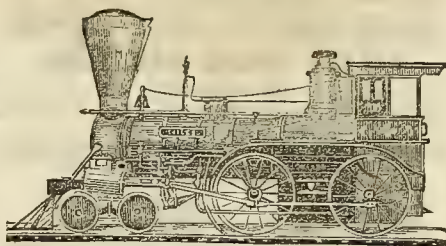
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DERAND, FULTON and TILTON.  
Manufactured by **J. M. BROWN.**

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI,  
BUILT to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for Iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs onr TENTH part of the time which is necessary when other boxes are used.

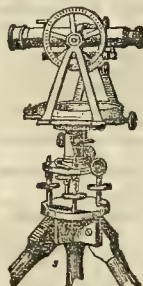
The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the models of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

**WILLIAM SHERBURNE,**  
PRINCIPAL AGENT,

May 1846-6\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.****T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

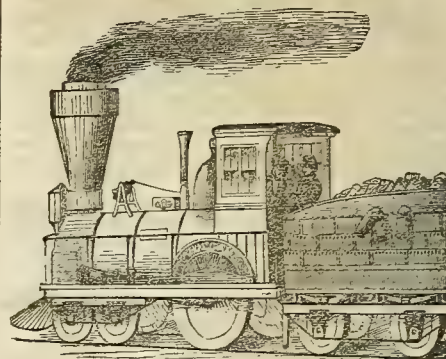
**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap:20 **MOORE & RICHARDSON.**

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

**CHARLES WASON,**  
Late of the firm of T. & E. Wason, Springfield, Massachusetts.

**Railroad Car Findings.****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Casting Fit Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight, Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes. Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

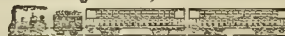
Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

**ALBERT BRIDGES,**

Late Davenport & Bridges, Car Manufacturers.  
Cambridgeport, Mass.

**ALFRED BRIDGES,**

Late Davenport, Bridges & Co., Fitchburg, Mass.  
toc6

**CAR MANUFACTORY,****Dayton, Ohio.**

**E. THRESHER & CO.,** having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

Dayton, Jan. 24th, 1853.

Jan. 25-†

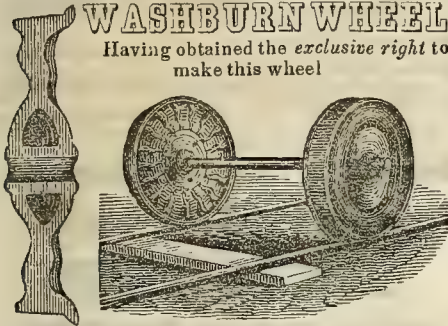


### FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

### WASHBURN WHEEL

Having obtained the exclusive right to make this wheel

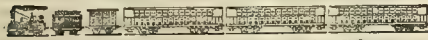


In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

### MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
an41f. Muskingum Works, Zanesville, O.

**J. DAVENPORT . . . M. D. WELLMAN . . . C. M. RUSSELL**  
**DAVENPORT, RUSSEL & CO.,**

### Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16\*  
JOSEPH DAVENPORT.

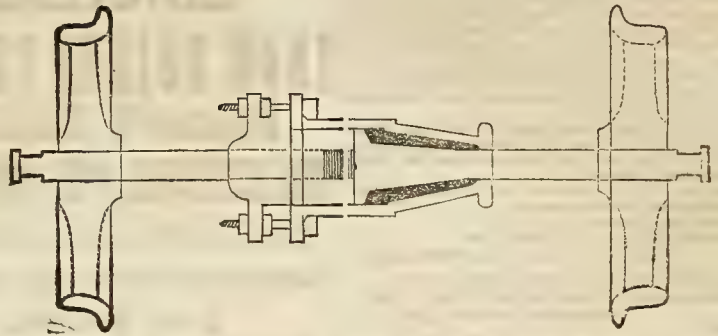
### S. C. THOMSON & CO.,

MANUFACTURERS OF

### PATENT PAD LOCKS,

For Railroad Switches, Merchandise Cars Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n.124 NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

3y104

**SAMUEL L. DENNEY,**  
Christiana, Pa.  
Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

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# LOCO- AND CAR

# MOTIVE SPRING

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Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to  
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May 19.

**M. B. MILLEN,** Gen. Supt. C. R. R. Savannah, Ga.  
**EMERSON FOOTE,** Supt. M. & W. R. R. Macon, Ga.  
**THOMAS DOUGHERTY,** Master Mach. do.  
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**Pinckney Huger,** Esq., Pres't. N.E.R.R. Co. "  
Oct. 13-4f.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

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READ THE FOLLOWING CERTIFICATES.  
OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.  
I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation  
WILLIAM B. FOSTER, JR.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,  
H. J. LOMBART, Superintendent.  
ENGINEER DEPARTMENT, NORTH P. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
READING, June 2, 1853.  
There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal-shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.  
In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,  
Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.  
GEO. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,  
STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.  
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FREE-JOINT TUBES  
For Core Bars, Awn-  
ings, Railings,  
Leaders, &c., &c.  
PATENTED

HOLLOW SLAB WATER TUYERES,  
For Smith's use, and  
WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

HOT WATER APPARATUS  
For warming air, boiling water and heating ovens.

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SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

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CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

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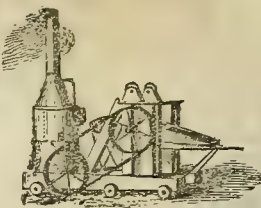
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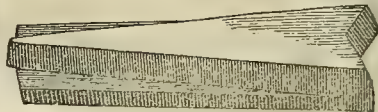


A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

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Important to Railroad Companies, etc.



Leavitt's Railroad Frog-Points,  
Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, etc., by means of this valuable discovery, manufacturing

RAILROAD FROG-POINTS,  
Lathe Mandrels, Gauges

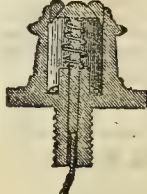
of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

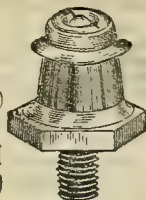
Measures have been taken to secure a patent for this valuable invention.

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N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

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**SUNBURY AND ERIE RAILROAD.**—The last span of the bridge over the Susquehanna, on the Northumberland side, was put up last week. The bridge on the Sunbury side is also nearly up. Both will be sufficiently completed for the passage of locomotives before the first of January. The small link of road making through this Borough, to connect the Philadelphia and Sunbury railroad with the Sunbury and Erie, is also rapidly progressing. The rails are now being laid on a portion of it, and the whole will be ready, we presume, by the time the bridges are completed. We think we can safely say that the cars of the Sunbury and Erie road will commence running from this place by the first of January next—when coal will be carried direct from the mines at Shamokin to Elmira and all intermediate places on the Sunbury and Erie, Williamsport and Elmira, and different points of the New York and Erie railroad.—*Sunbury Tribune.*

VOL. III.—No. 41.

### THE RELATIVE GROWTH OF TOWN AND COUNTRY, OR THE DISTRIBUTION OF POPULATION.

In two previous articles on this subject, we pointed out the *tendency* of the age, in the growth of new arts, to divert population from the pursuits of agriculture, and thus enhance the *price* of products to the consumer. This we do, not by any means to discourage (if we had the power,) the invention or the growth of arts, so much desired and so much praised. But to show the *tendencies* of population and production, under our form of civilization; and to show (what cannot well be denied,) that this boasted civilization has its *dangers*, as well as its excellencies. The *inventive* faculties of man impel him to the discovery and use of various arts, while his *gregariousness* impels him to live in towns. The last quality prevails over every other, so much so, that thousands submit to a precarious and scanty subsistence in towns, rather than to earn peace and plenty in the country. This makes cities the resort of pauperism, vice and crime. It is thus that they become the hot-beds of passion, and the scene of turbid violence. Notwithstanding this, they have their charms and their excellence, which even Cowper, the very apostle of country life, could not help acknowledging:

"I do confess them nurseries of the arts,  
In which they flourish most; where in the beams  
Of warm encouragement, and in the eye  
Of public note, they reach their perfect size."

By the natural gregariousness of man, greatly excited by the continual increase of the arts, cities continue to enlarge with wonderful rapidity, and nowhere more than in this new country. But to increase cities and towns *more rapidly than the country increases*, is to diminish the power of agricultural labor, and surely (however slow) to enhance the cost of agricultural products.

To illustrate this matter in a more distinct point of view, we present the following tables of civic (or town,) and agricultural growth in the four most active and industrial States of the Union, viz: Massachusetts, New York, Pennsylvania and Ohio.

#### 1. Growth of Civic and Agricultural Population in Massachusetts from 1830 to 1850:

|                                              | In 1830. | In 1850. | Ratio of<br>[Growth. |
|----------------------------------------------|----------|----------|----------------------|
| Population of Towns<br>over 5,000 inhab'ts.. | 128,645. | 327,144. | 160 per c't.         |
| Population of the other<br>classes .....     | 481,863. | 667,370. | 40 "                 |
| Total population.....                        | 610,408. | 994,514. | 64 "                 |

#### 2. Growth of Civic and Agricultural Population in New York from 1830 to 1850:

|                                              | In 1830.   | In 1850.   | Ratio of<br>[Growth. |
|----------------------------------------------|------------|------------|----------------------|
| Population of Towns<br>over 5,000 inhab'ts.. | 348,370.   | 963,552.   | 175 per c't.         |
| Population of other<br>classes .....         | 1,570,238. | 2,133,842. | 36 "                 |
| Total population.....                        | 1,918,608. | 3,097,394. | 61 "                 |

#### 3. Growth of Civic and Agricultural Population of Pennsylvania from 1830 to 1850:

|                                              | In 1830.   | In 1850.   | Ratio of<br>[Growth. |
|----------------------------------------------|------------|------------|----------------------|
| Population of Towns<br>over 5,000 inhab'ts.. | 191,779.   | 521,587.   | 175 per c't.         |
| Population of other<br>classes .....         | 1,156,454. | 1,790,199. | 55 "                 |
| Total population.....                        | 1,348,233. | 2,311,786. | 76 "                 |

#### 4. Growth of Civic and Agricultural Population of Ohio from 1830 to 1850:

|                                              | In 1830. | In 1850.   | Ratio of<br>[Growth. |
|----------------------------------------------|----------|------------|----------------------|
| Population of Towns<br>over 5,000 inhab'ts.. | 40,387.  | 182,303.   | 350 per c't.         |
| Population of the other<br>classes .....     | 897,516. | 1,798,104. | 100 "                |
| Total population.....                        | 937,903. | 1,980,427. | 111 "                |

#### 5. Aggregate Growth of the Civic and Agricultural Population of the States of Ohio, Massachusetts, New York, and Pennsylvania from 1830 to 1850:

|                                              | In 1830.   | In 1850.   | Ratio of<br>[Growth. |
|----------------------------------------------|------------|------------|----------------------|
| Population of Towns<br>over 5,000 inhab'ts.. | 709,072.   | 1,994,586. | 180 per c't.         |
| Population of the other<br>classes .....     | 4,106,080. | 6,389,835. | 55 "                 |
| Aggregate population.....                    | 4,815,152. | 8,384,421. | 75 "                 |

If we suppose this process to be carried on for two more such periods, viz.—forty years, the results will be as follows:

| Town or Civic Population of these four<br>States ..... | 15,632,000 |
|--------------------------------------------------------|------------|
| Agricultural population of the same States..           | 10,044,900 |
| Excess of Town or Civic population .....               | 5,588,800  |

In other words, in forty years, the most active and industrial population of the United States, will press against the limits of subsistence; for observe, in this result, *two* men must support *five*, which *may* be done in a high state of agriculture, but which never has been done in Europe; for, when, as in England and France, less than half the people have to support the whole, then *grain* has to be *imported*.

What do we see now in Europe? The importation of grain or bread, is a *permanent* fact in England. In France, it is rapidly becoming so; and even in Germany, it is varying toward the same condition of things. If this be actually the *condition*, which is to become permanent in Europe hereafter, what will be its fate? Is there anything in the highest civilization, or the utmost power of the arts, which can preserve the independence or the wealth of a people, who are dependent upon foreign nations for their bread? History furnishes no example of a nation, sustained under such conditions. But the reply is now that modern civilization, by the introduction of rapid and cheap locomotion, has thrown nations together and made them parts of one whole, so that the deficient countries may be fed from the abundance of the others. But, in order to make this a *possible remedy*, *two other conditions* are essentially necessary. *First*, that the world should be *at peace*; and *secondly*, that some other countries should be under *other conditions*, which enable them to raise a surplus.

The Russian War is a sufficient answer to the first proposition, which is already cutting off the supplies from the Black Sea. To the second, the tables which we have furnished above are also an answer. They show that in the most agricultural and fertile country in the world—the United States—the civic or town population is growing at a rate *three-fold as rapid as the agricultural population*. At this rate, in half a century, *population will press*



*against the limits of subsistence, even in this new and prosperous country.*

The dangers of Europe, therefore, are only at a more remote period, the dangers of the United States also—and to both, there is eminent danger from a hot-bed civilization, which degrades the first, best, great and noble employment of man—agriculture.

#### A TRIP OVER THE PENNSYLVANIA RAILROAD, FROM PHILADELPHIA TO PITTSBURG.

The distance by railroad from Philadelphia to Pittsburg is 353 miles; the line is made up of three roads—the State Road, or, as it is frequently called, the Columbia Railroad, to Dillersville, 69 miles; the Harrisburg and Lancaster Railroad, from Dillersville to Harrisburg, 36 miles; and the Pennsylvania Railroad, from Harrisburg to Pittsburg, 248 miles. The State Road was built over twenty years ago, and was, at that time, an excellent work. It was laid with edge rail, laid in chairs; the whole of the rail was English rail; it has since been mostly relaid with T rail. The Engineer of the road seems to have entertained a notion that motive power could never be used on railroads, and that the more curves he could put on the road, the more beautiful and picturesque it would be. If this road were to pass into the hands of private individuals, it would soon be much straightened and otherwise improved. If Pennsylvania would ever sell her public works, she would do well to keep up her roads in better condition, and offer more liberal terms to purchasers.

At Philadelphia, as we leave the city, we have a fine view of the Schuylkill, with its suspension bridge, the dam, and the Fairmount Water Works on the hills to the north, and Girard College; while a little to the left is a huge iron column, surrounded with a circular stairway—the West Philadelphia Water Works. The road winds around the hills bordering the Delaware, nearly in a westerly direction. Paoli, twenty miles west of Philadelphia, was the scene of the Paoli massacre in 1777. The spot is marked by a marble column, erected in 1817. Soon after leaving Paoli, we enter the beautiful and fertile Chester Valley. The country thus far has been hilly, and the cuts through rock. The scene here changes, and the gently rolling fields and heavy verdure give evidence of a fertile and productive soil. At Downingtown, thirty-three miles from Philadelphia, we cross the north branch of the Brandywine, famous for the revolutionary struggle, about fifteen miles below the crossing. At the Gap, fifty miles from Philadelphia, we pass the highest summit on the State Road, 560 feet above tide-water. We here leave the rich Chester valley, and enter the Pequea valley of Lancaster county, also a rich, rolling, agricultural region. The farms

along this whole region will average \$85 per acre; before the railroad was built, they were worth about one-third that amount. Lancaster, sixty-eight miles from Philadelphia, is a place of considerable importance. It is the fourth city in Pennsylvania, and contains several extensive manufacturing establishments. At Dillersville, about a mile above Lancaster, we leave the State Road and take the Harrisburg and Lancaster Railroad. The track of this road evidences the thrift of private enterprise. It is better ballasted and kept up than the State road, and rides much smoother. Between Mount Joy and Elizabethtown is a tunnel through the ridge 900 feet in length. Harrisburg, the capital of the State, is handsomely situated on the Susquehanna, in a fertile and productive valley, and is quite a railroad center. Here we reach the Pennsylvania Railroad proper, running from this point to Pittsburg. This road is 248 miles in length, and is laid on one of the most solid and substantial roadbeds in the world. It is a cross-tie superstructure, laid with T rail on a bed of broken stone. Like the Baltimore and Ohio Railroad, it passes through a region that was once supposed to be incapable of railroad improvement. Rugged mountain defiles, narrow gorges, headlong torrents and high summits were among the obstacles to be overcome on nearly the whole length of the route. Its passage through the Allegheny mountains presents some of the boldest specimens of engineering anywhere to be found, and bears unequivocal testimony to the skill and genius of the engineer who executed it. From Harrisburg, the road follows the valley of the Susquehanna, with its bold rugged mountains, to the mouth of the Juniata. It crosses the Susquehanna at Rockville by a wooden bridge 3670 feet in length. It is a magnificent structure. The Juniata valley is justly celebrated for its beautiful scenery, at different points softening down to the gently swelling valley rich in agriculture, and again bursting through a range of mountains in wild and majestic grandeur.

Altoona, at the foot of the Alleghany mountains, exhibits in a remarkable degree the life-giving influence of railroads. Five years ago there was but one habitation there, a log hut of a farmer. To-day there is a town of four thousand five hundred people, all sprung up within that period. The repair shops of the Pennsylvania Railroad are located here. Here is the residence of the general Superintendent, and the principal office of the telegraph belonging to the company, and used by them in operating their road. The shops of the company here are on a magnificent scale, and when all completed will be the most extensive shops in the country. There is, at Altoona, a first class hotel, owned by the company, and managed with reference to the comfort of travelers who pass over the road.

Altoona was very judiciously selected by the company for the repair shops, as the character and climate of the country along the route, and indeed the route itself, here changes. East of Altoona the grades are about twenty feet to the mile; west of this place the road rises 900 feet within twelve miles, the maximum grade being 95 feet to the mile. About twelve miles west of Altoona is Gallitzin, the summit on the Alleghenies, and the division between the waters that flow to the Atlantic, and those that flow to the Gulf of Mexico. This point is 2,160 feet above tide water. There is here a tunnel three-fourths of a mile long. The scenery along this twelve miles is of the wildest character of mountain scenery, and is alone well worth a trip over the route. About half way between Altoona and Gallitzin the track sweeps around Kittanning point, almost making a circle; the gorge below and the peaks above are in full view for a long distance. Beyond Gallitzin we follow the wild valley of the Little Conemaugh to Johnstown, 274 miles from Philadelphia. Here we strike across Laurel Hill and Chestnut ridge, and leaving these, across the hilly country between these mountains and the valley of the Ohio. One of the most interesting spots on the whole route is Braddock's Field, on the Monongahela. Here, at the crossing of a little stream, surrounded with high hills, affording a fitting place for a surprise or a retreat, is the ground chosen for the annihilation of Braddock's expedition. Ten miles beyond, at the confluence of the Allegheny and the Monongahela, whose valley we have followed for the last twelve miles, is Pittsburg, the terminus of the Pennsylvania Railroad.

The whole road is ballasted with broken stone, laid with substantial cross-ties and T iron. The rails on the greater portion of the line weigh 65 lbs to the yard; crossing the mountains the weight of rail is 85 lbs to the yard. A portion also is the U rail, weighing 74 lbs to the yard, laid with wrought iron splices, and forming in this manner a continuous rail of great solidity.

#### GEOGRAPHICAL DISCOVERIES ON THE NORTHWEST OF ASIA, BY THE UNITED STATES SHIP "HANCOCK."

The United States steamer "Hancock," Commander Stevens, has been surveying the coasts and straits of Jesso, the principal island of Japan. The vessel then crossed over to the northern seas of the coast of Ochotsk, and spent some days in the survey of the Gulf of Taosk, a great resort for whalers; and thence to Azov, the site of a Russian Fur Company's settlement; and thence to Shetter Islands. Some discoveries were made on the Russian coast, which are of considerable geographical interest.

"From the Straits of La Perouse, the Hancock crossed the Sea of Ochotsk to the west-



ern coast of Kamtschatka, sighting it in about the latitude of Bolcheretsk, and coasting along on to the Gulf of Penjirisk, nearly as far as 61° north. In this Gulf, on the eastern shore, in about 60° 18' north, and longitude 160° 51' east, the Hancock procured about forty-five tons of coal from some coal veins, the existence of which had been reported by the American whaler *Splendid*. The veins were from two to three feet thick, and came down to the water's edge, and could be easily worked. There is a small native village near by, but they are Kamtschatdales, and wretchedly poor. The tide rises and falls about thirty-six feet, rendering the approach in boats to the coast difficult at low water. The coal is bituminous, and not well adapted to the Hancock's boilers, (which are tubular,) but is capital of its kind, and would be excellent in any other case.

"The steamer then entered the Gulf of Saghalien, anchoring at the mouth of the passage between the island of Saghalien and the main. Here reliable information, from Russian officers, was obtained as to the geography of the neighborhood, and all doubts settled as to the existence of a passage into the Gulf of Tartary. The river Amoor, the great artery of Northern Asia, empties into a spacious gulf formed by the island of Saghalien and the main. The shores contract at the northern and southern parts, forming passages about fifteen miles wide, through which the waters escape by the north into the sea of Ochotsk, and by the south into the Gulf of Tartary. Both passages are intricate, and in some places only two fathoms at low water. The rise and fall is about six feet. Nearly the whole of the gulf between is filled up with banks, through which tortuous channels run from the outlets to the mouth of the river, and one connecting them in the eastern part, and running not far from the island of Saghalien.

#### METEOROLOGY ON THE OHIO.

We have thirty years experience of seasons and their changes on the banks of the Ohio, and we have no recollection of weather so beautiful and dry on the first of December. It is not merely mildness of atmosphere, but the clear and lovely aspects of all nature. The grass is nearly as green as in spring; the wheat fields fresh and green; the small streams run clear and pure; and, in fine, the season seems like a dry spring. The unusual amount of rain which fell in summer and the early part of autumn have given place to the very opposite and more pleasant conditions.

GRAND TRUNK R. R., CA.—The Grand Trunk Railway of Canada, was formally opened from Montreal to Brockville, on Saturday, Nov. 17.

#### PLATFORMS.

Of the various platforms made during the present year, it is universally admitted that Gen. Moseley's Tubular Wrought Iron Arch Bridge is the most substantial. The General offers to put up bridges at his risk, as to strength, and allow them to be tested by all the Locomotives that can be placed on them, holding a convention.

### Railroads.

#### PACIFIC RAILROAD—ACTION OF THE LEGISLATURE OF TENNESSEE.

The subject of the Pacific Railroad is one of vast and undoubted importance; and, if we mistake not, is destined to be one of the great questions of the day. To carry on this mighty project to completion, to lay down the iron road that shall accommodate the trade and travel of two hemispheres, embracing every variety of climate and production, the teas of China and the spices of India freighted on the same train with the furs of Siberia, is a work which may well claim the attention of our country as a whole. If the completion of a short line of railroad across the Isthmus of Panama, *within the territory of another power*, was a subject of congratulation on the shores of the Atlantic and Pacific, what should not be the interest *felt* and *manifested* in that greater and better project, a road on our own territory to our own distant States—a road that shall water its steeds in the light of the rising sun, and stable them in the glowing splendor of his setting rays?

We hail it, therefore, as a good omen, that the Legislature of Tennessee has taken the initiatory in manifesting the interest that she feels in this project, and we trust that ere long we shall hear an echo from Maine to Louisiana.

The following paragraph, from the *Cincinnati Enquirer*, will show the interest that Cincinnati has in this project:

"For precisely the same reasons that actuate the people of Tennessee, with others in addition, is this a matter of first importance to Ohio, and especially her commercial capital, Cincinnati. Our railroads are rapidly extending South through Kentucky, and reaching out toward Memphis, tapping all their constructed or contemplated iron thoroughfares, enterprises that have within the last two years received an impetus heretofore unknown in the South. We will be brought into immediate and direct connection with the Pacific Road, and into our lap will the wealth of the Western coast and the intermediate country, most of it yet to be developed, pour with that certainty which always marks the course of commerce and trade. Our manufacturing interests, as extensive and prosperous as they are now, must be accelerated to an incalculable extent. It

is in this department of industry our local wealth is mainly invested. Upon it the future greatness of Cincinnati is to be constructed and sustained, and it would be suicidal indeed should not our people awake to a lively interest in this enterprise that so vitally concerns them."

The following is the preamble and resolutions introduced on Nov. 12th into the Legislature of Tennessee, by Major ROBERT H. ARMSTRONG:

"WHEREAS, It is of the first consequence to the State of Tennessee that the great Atlantic and Pacific Railroad thoroughfare should pass through her territory; and whereas, it is believed by the General Assembly that the projected route, known as the southern route through Texas, is not only the nearest and most practicable but that it may contribute to effect the aforesaid object; therefore, be it

"Resolved by the General Assembly of the State of Tennessee, That our Senators in Congress be instructed and our Representatives requested to use their utmost exertions to procure the passage of a law by Congress favoring the construction of and the location of the great Pacific Railroad along that route known as the Southern Route through Texas, and appropriating to it all the patronage and means consistent with the policy and power of the General Government.

"Resolved, That the Governor of this State be requested to forward to each of our Senators and Representatives in Congress a copy of these resolutions."

The above resolutions were subsequently adopted by the Senate.

On the 16th instant the Committee on Internal Improvements, through their Chairman, Mr. Brown, made the following report:

"The Committee on Internal Improvements, to whom resolutions 'instructing our Senators and requesting our Representatives in Congress to favor, so far as it may be in their power, the Southern Pacific Railroad route through Texas, were referred, would beg leave to state that they have had the same under consideration, and concur in the opinion of their correctness.

"The committee would submit the following brief compilation of facts, figures and opinions, connected with this subject:

"This road should be built; it is an undertaking of the greatest magnitude—a continuous line of two thousand miles in length—at a cost of \$100,000,000. It is the greatest enterprise of the age, and as a national scheme should have appropriated to it, in the language of the resolutions, 'all the patronage and means consistent with the policy and powers of the General Government.

"The United States have a coast line of near twenty-two hundred miles on the Atlantic Ocean, and on the Pacific about fourteen hundred miles, with an area of near three millions of square miles of territory spreading out from ocean to ocean, embracing twenty degrees of latitude, and containing about twenty millions of inhabitants, with wealth unbounded and resources inexhaustible; yet between the two extremes of the Union, the old Atlantic States on the East and the young Pacific States on the West, there is no national highway or thoroughfare on our own soil. Between these States there



is a wide, unbroken territory, lying in one grand and almost trackless wilderness. The travel, commerce and mails passing from one of these States to the others, must pass through foreign lands to reach our own shores, and continually be subject to the exactions of friends or foes, as these foreign nations, upon whom we are dependent, may be.

"The road should be built as a connecting link in the great system of railroads—the arteries of trade and commerce, elements of this nation's greatness; and these lines of road should be extended and distributed throughout the whole body politic, so as to vivify and connect the whole.

"This road is not only a necessary means of travel and commerce, but is essential to the perpetuity of the bonds of Union between the East and West, and to the cementing our nationality. The peaceful and political relations between these widely dissevered States will, in a good degree, depend upon the blending of interest, commercially and socially, by railroad communication—the linking the States together with interest and patriotism. This road will bear upon its bosom a million tons of freight and trade to invite the pecuniary, while twenty millions of passengers will fix the social interests of the citizens of this great Republic, so that these *iron bands of rails*, thrown across the continent, will lead to a lively intercourse and advantageous commerce to the States, and be stronger, and tend more to render our Union indissoluble and perpetuate our national blessings than compacts and constitutions.

"If the intercourse between our States is impeded, if one portion is taught or compelled to seek associates and business companions abroad, and the government fail to make the approaches to all parts of the country accessible, estrangement to the government is the consequence. The national ties are weakened, and a desire is begotten, if an effort is not made, to sever the bonds of the Union. The completion of this road would remove all these difficulties, and be an important step preventive of a great Pacific Confederacy in the future of this country.

"Nature and the engineer's instruments have both pointed to the Southern route as the nearest and most practicable. Nature speaks in the climate, soil, timber, rivers and productions. The instruments mark the distances, elevations, and depressions on the route, showing the cost to be about one-half of the other routes, while the distance is about one-third less. Free from the cold of the North and the diseases of the extreme South, and with the certainty and safety of the route, as evidenced in these characteristics, this route will command and receive the travel and carrying trade between the oceans.

"The Secretary of war, after a review of the several routes, distances, cost, and character of the work, says:

"A comparison of the results stated above, and of those exhibited in the tables referred to, conclusively show that the route of the thirty-second parallel, (the Texas route,) is, of those surveyed, the most practical and economical route for a railroad from the Mississippi River to the Pacific Ocean.

"This is the shortest route, and not only is its estimated cost less by a third than that of any other of the lines, but the character of the work required is such that it could be executed in a vastly shorter period."

"And again:

"Not only is this the shortest and least cost-

ly route to the Pacific, but it is the shortest and cheapest route to San Francisco, the greatest commercial city on our Western coast; while the aggregate length of railroad lines connecting it as its eastern terminus with the Atlantic and Gulf seaports is less than the aggregate connection with any other route."

"How is this road connected with Tennessee, and why are Tennesseans more deeply interested in this route than most of her sister States? The Eastern terminus of this road is properly at Corsicana, Texas, as that is the branching point for either New Orleans, Vicksburgh, Memphis, or St. Louis. From Corsicana the road runs to Fulton, to Little Rock, and from thence to Memphis. These connections are not only contemplated, but are being provided for and built. By the Fulton and Memphis and Little Rock Roads we are borne from the trunk of the great Pacific Road to Memphis, the great cotton emporium of the Southwest—thus making the principal branch—practically the terminus of this great national thoroughfare—at Memphis, in our State, and there connecting with the entire system of railroads in Tennessee, and running through the State, connecting with the roads North, South and East, gathering within its influence the roads from Georgia to Maine, the lakes, and the Atlantic Ocean.

"This route connects Memphis, Jackson, Nashville, Murfreesborough, Chattanooga and Knoxville, the great cities of the State, and from Memphis by great leading roads to Louisville, and thence to the cities of the Atlantic coast, to Charleston and New Orleans; from Jackson, the capital of the West, to New Orleans, to Mobile, to Cairo, to St. Louis, and through the States of Illinois, Indiana, and Ohio, to the cities of the lakes and the East; from Nashville, the metropolis of the State, to the cities of Tennessee, East and West, uniting with their leading routes, and to Cincinnati, Charleston, New Orleans, Savannah, Louisville and Evansville; and from Knoxville, the metropolis of the ancient State of Frankland, now the rapidly growing emporium of the fairest portion of the United States, by her great radiating routes to Louisville and Cincinnati, to Charleston and Savannah, to Beaufort, Wilmington and Norfolk, and to Washington, Baltimore and New York, and thus tap the grand cordon of roads that bind our Eastern coast.

"No commercial project in the world ever did or can offer such a prospect of business and profits. The Pacific coast will soon be filled with busy millions of moving, travelling, trading inhabitants. The millions then lying West, and beyond the West, with millions on the East, will travel this road. The commerce and trade of the United States, with much from Europe, India, and other distant nations, will pass over this great artery of trade and travel. A large portion of all this commerce and travel will pass through Tennessee on our railroad routes, to be discharged and distributed at the city of Memphis. This immense amount of commerce will give Memphis her hundred thousand inhabitants, with wealth exceeding any city of the South; and these commercial advantages will be diffused and felt throughout the State—the citizens will realize these vivifying influences from Carter to Shelby. The wealth, commerce, and travel, with their attendant advantages, foreshadowed to Tennessee, cannot now be computed. Tennessee, alone, however, is not to be the recipient

of all the blessings to flow from building the world's highway; our whole country will share in this prosperity. The wilderness will be subdued, agriculture quadrupled, mines opened, and the great natural resources developed. This country will be the granary of the world; the canvass of her commerce will be upon every sea; while the smoke from her manufactories and workshops will commingle, and hammer will respond to hammer, from the rising to the setting sun of our great Republic.

"The committee, therefore, recommend the passage of the resolutions. All which is respectfully submitted.

H. BROWN, Chairman."

#### OHIO AND MISSISSIPPI R. R. EAST END.

The failure of the last scheme for obtaining the necessary means to complete this road and to change of president, has led to new efforts to carry to completion this valuable improvement. Mr. Wm. Glenn the present president of the board, is a gentleman of untiring energy and decided business qualifications. His acceptance of the position has led to strong hopes on the part of the friends of the road, and we sincerely trust they will be consummated. When we consider the millions of capital lying here unproductive because mostly unemployed and the great inconvenience resulting from the unfinished state of the road, not only to Cincinnati, but to others, we cannot but wish for the completion of this road. At a meeting of the stockholders and other citizens, held in this city on Saturday evening last, Mr. Glenn made the following statement, for the report of which we are indebted to the Cincinnati Commercial.

MR. PRESIDENT AND GENTLEMEN: The few days that I have had charge of the affairs of this Company has precluded the possibility of going back and making up a full and detailed report of its present situation. Indeed taking it in its wide-spread and tangled condition, to accomplish this work would be the labor of months.

We are compelled therefore to take the Report of August last as the principle basis for ours. So far as we have been able to investigate, we have found this in the main correct, and after making such changes as have since occurred, we believe the figures, which we present, approximate very nearly to correctness.

In the first place we beg leave to present a brief summary of the past history of the Road.

The Ohio and Mississippi Railroad Company, like most of the Railroad Companies in the West, commenced the prosecution of an extensive work with a very small amount of means. In this section of the country, where capital does not at all correspond with enterprise it necessarily happens that works of internal improvement are commenced in advance of the provision of means for their completion; and the work which is the subject of our consultation to-night, forms no exception to the general rule.

It chanced, however, that in a favorable period, the Company was enabled to make an arrangement with energetic contractors for the construction of its whole road; by the terms of which only about one-third of the entire cost of the work was to be paid in money—the remainder being settled by the stock and bonds of the Company. The contractors stipulated with the extensive Banking House of Page & Bacon, of St. Louis, for the advance to them, on the securities to be received under their contract, of the money necessary for the prosecution of their undertaking. And when the bonds of the Company, which were part of the consideration of the contract, had been deposited in Europe, without sacrifice, at a very early period in the progress of the work, it seemed nearly certain that the Road would be prosecuted to a speedy completion.



Many things have, however, occurred to retard and embarrass the Company. It was found, as is usual in such cases, that more money was required than had been anticipated. The right of way on some parts of the Road, especially between this city and the Great Miami, was enormously expensive. Changes were required in the character of the work which involved an increased outlay. H. C. Seymour, the principal contractor, and one of his associates, died suddenly, leaving their surviving partners in the midst of an onerous and perplexing undertaking. Mr. Bacon, the managing partner of the Banking firm, who had been making the advances of money to carry on the work, found it necessary to purchase the contracts and to become the principal in the construction both of this Road and of the Western Division from Vincennes to St. Louis. Then came the financial convulsions of last year, and with them the prostration of all Railroad securities; and the result of the whole matter was that about a year since the Company found itself in the midst of a sea of trouble, with its resources about at an end.

It was then thought that \$1,500,000 would put the enterprise beyond danger, and it was determined to apportion this sum equally among the parties interested in the Company in this city, in New-York, and in Europe.

The parties in Europe who were the holders of the 1st Mortgage Bonds were not disposed very readily to advance more money, but were willing to do so to the extent of \$500,000 if \$1,000,000 could be raised in America, and Page & Bacon, who were the holders of a large share of the second Mortgage Bonds, as well as large stockholders, agreed to advance one half of this sum, if the other half was obtained in this city.

The \$500,000 necessary to be raised here, was then procured by the sale of the wharf property to the city, and the prospects again became favorable.

And in the expectation of a speedy provision of means, and with a view to prevent the very great damage to the Company, which would result from a suspension of the work, the Company were compelled to resort to a system of financing, and submit to sacrifices to sustain themselves in the meanwhile, the results of which, while the Company would not have suffered materially, had the expected means been realized, have owing to the failure of the scheme, proved unfortunate.

The failure of Page & Bacon having cut off all hopes of the \$500,000 which had been expected from that quarter, the expectation of aid from Europe was also disappointed, and the Company found itself under the necessity of commencing anew the preparation of a scheme for raising money.

New schemes have been successively devised, the last and most important of which involved a change in the management of the Company, it being deemed expedient for the better satisfaction of the subscribers, that with the beginning of the new project a new administration should take charge of the affairs of the Company. This, however, was without any reflection whatever on the old Board. This scheme, however, also failed, owing to a doubt having arisen in regard to its legality, and consequently another change has taken place in the Board, and it has been found necessary to commence anew.

It is but justice to those who have heretofore had charge of the affairs of the Company, to say that no ordinary human sagacity could have foreseen the rocks on which these various plans have been wrecked. To pronounce upon a scheme of financial policy before it has been tested, and again after its results are made manifest, is a widely different thing.

This brief outline of the history of the road I have referred to for the purpose of showing the unforeseen misfortunes and disappointments to which it has been subjected, and the impossibility owing to the many changes through which it has passed, and the entangled and unsettled condition of the accounts and everything connected with it, of giving anything like a precise and minutely reliable statement of its affairs.

Mr. Glenn then gave the following statement of the assets and liabilities of the road.

The whole amount of the bonded debt of the company, being the First and Second Mortgage Bonds, is..... \$3,550,000  
The total amount of stock issued, deducting the \$1,000,000 hypothecated to the city of Cincinnati to secure her loan of \$600,000, is 5,383,000

Making the total amount of bonds and stock issued..... \$9,933,000

The following is a full statement of the present condition of the company, showing its resources and liabilities, exclusive of the bonded debt and stocks, and showing the amount necessary to be raised in order to complete the road and relieve it of its embarrassments:

Chief Engineer's estimate of cost of finishing the road, as reported June, 1855... \$1,201,705 00  
Estimates since 1st June deducted..... \$50,000 00  
348 tons iron received on account Trust Fund..... 25,056 00- 75,056 00

Estimate for finishing road say..... \$1,126,649 00

To which add amount due by company in shape of bills payable..... \$494,547 70  
Bal. due count'rs and others..... 156,183 73  
Bal. due on paymaster's depts..... 63,367 81  
Amount to pay taxes for 1855 and office expenses..... 32,000 00

Interest on F'st Mortgage Bonds due July 1, '55..... 71,750 00

Interest on 2d Mortgage Bonds, due Oct. 1, '55..... 52,500 00

Interest on 1st Mortgage Bonds, due Jan'y 1, '56..... 71,750 00

Interest on 2d Mortgage Bonds, due April 1, '56..... 52,500 00

Interest on 1st Mortgage Bonds, due July 1, '56..... 71,750 00

Interest on 2d Mortgage Bonds, due Oct. 1, '56..... 52,500 00- \$1,127,819 30

2,254,468 30

#### RESOURCES.

Balance due in Bonds from city of Cincinnati..... \$200,000 00

41 Bonds of the city of Cin'ti..... 41,000 00

212 Bonds of Indiana Co. Bonds, estimated..... 148,400 00

29 2d Mortgage Bonds of Co..... 14,500 00

Balance of Trust Fund from 1st Mortgage.....

Bonds payable in iron, say..... 170,000 00

Due on stock subscriptions amt't \$156,571 00, of which Co. can collect, say..... 70,000 00

Surplus real estate..... 30,000 00

Miscellaneous claims..... 30,000 00

Estimated earnings of the road from 1st Dec. 1855, to 1st Jan. 1857, at the rate of \$12,000 per month is..... 156,000 00- \$550,900 00

\$1,394,568 30

To which add interest on city loan, \$600,000, due June and July 1856..... 36,000 00

Total amt't nec'y to be raised..... \$1,480,568 30

In regard to the present receipts and expenditures of the running portion of the Road, I would remark that while we have effected a large reduction in our expenses, our receipts are rapidly increasing, particularly on the freight business; and by a recent arrangement with the Jeffersonville and Columbus Road, in regard to the running of trains, we expect a large increase in our passenger business. The present nett earnings of the Road are about \$12,000 per month, which we hope soon to render much larger. The strictest economy is being exercised in every branch of expenditure, and every effort being made to accommodate the entire trade and travel, both local and through. We see nothing to prevent a steady and rapid increase in the business of the Road, which, however, bears no comparison proportionately to its length to what it would be were the Road finished to Vincennes.

We have now laid before you, gentlemen, as briefly as possible, the main facts in this case. It would be superfluous for me to attempt to urge upon you the vast importance of the success of this scheme to the prosperity of our city. Every gentleman here understands this far better than any remarks from me could impress it upon him. Personally the Board have no more interest in the success of this project than the

great majority of the Stockholders; we are all gainers or losers by it to a greater or less extent.

The President then stated that in order to raise the amount necessary to complete the road, the company proposed to issue Bonds to the amount of two and a half millions, and he read the following paper, showing the terms on which this would be subscribed for:

"The Ohio and Mississippi Railroad Company, incorporated by the States of Ohio and Indiana, proposes to issue its bonds to the amount of \$2,500,000, payable in the city of New York, thirty years after date, with coupons attached for interest, at the rate of 7 per cent. per annum, payable semi-annually, in the same city, and secured by a third mortgage on the road and its equipments, and also by a pledge of income for their redemption to the extent of \$5,000 month after the 1st of January, 1857. The bonds so to issued are to the extent of \$2,000,000 thereof, to be offered for sale at the rate 70 cents on the dollar, payable ten per cent, on the face of the bonds at the completion of the subscription, and a like sum monthly thereafter until the payments are completed.

The undersigned agree with the said Company to purchase the bonds above referred to, to the extent of the amount respectively annexed to our names, and to pay for the same in instalments, as above specified, provided that no subscription shall be binding until bonds to the extent of \$1,500,000 are subscribed for."

The Committee have, after mature deliberation, decided upon this scheme as the only one now practicable, and the last hope of retrieving the road. The sale of these Bonds will render the completion of the Road certain, and we believe the Bonds will then become a safe investment at the price at which they are offered; and as this would cause an advance in the value of the Stock, it becomes deeply to the interest of every Stockholder to lend his aid towards the successful accomplishment of this purpose. If the Bonds are sold, we pledge you that the Road shall be completed and the cars running to St. Louis within twelve months; and with the immense business which its own great resources and unequalled geographical location must command, we believe that with proper management the Company can in a few years place itself in an independent and untrammelled condition. If, however, our scheme fails, then all we can say to the Stockholders is, your Stock is worth about as much as this paper, and the best use to which you can apply your \$6,000,000 of Scrip, is to light your cigars with it.

**RACINE AND MISSISSIPPI RAILROAD.**—The first section of the Racine and Mississippi Railroad, extending from the city of Racine, on Lake Michigan, twenty-five miles South of Milwaukee, to Burlington, on the Fox River, twenty-six miles South-West of Racine, was completed last week, and the occasion of opening the road for travel and business duly celebrated by an excursion to Burlington on Wednesday last.

The Racine and Mississippi Railroad is a very promising enterprize, and under good progress. Twenty-six miles are now completed, and in use; and the Company hope to reach Delavan, twenty-four miles further, early in the next year. The road is graded most of this distance, and the iron for the track purchased and on the way. Within the coming year, they also anticipate reaching Beloit, on the Rock River, sixty-eight miles from Racine, connecting there with the Illinois chain of railroads, West and South. This road has been pushed ahead, in the face of difficulties and discouragements, with an energy, skill, and indomitable perseverance.



**ALABAMA AND TENNESSEE RAILROAD.**—The Selma Sentinel of Tuesday last, announces that on the previous day the train, for the first time, ran up as far as Shelby Springs, where the Company have established a depot. The track had been laid a mile or two beyond that point, and enough iron was on hand to complete the road to Waxahatchee creek. If the Alabama river permitted the delivery of more iron, there would be no delay in shoving the work right ahead to the Coosa river. As soon as the road is completed to Columbiana, a morning and evening train will be run from that station to Selma.

**THE GAINESVILLE R. R.**—The Gainesville Independent of Saturday, 3d inst., informs us that the line between Gainesville and the junction of the Mobile and Ohio Railroad is in an excellent state of progress; that the grading is believed to be more than half done; that there are over one hundred hands at work; and that the prospects of the road between Gainesville and Tuscaloosa are daily brightening. Its friends, says the Independent, are constantly on the alert to secure for it every advantage that offers. Not a few of these are daily accruing in the shape of a sound public opinion.

#### LIABILITY OF RAILROADS IN CASE OF ACCIDENTS—INTERESTING JUDICIAL CASE.

We take the following notice of a suit involving the principle of the liability of railroads for damages to persons injured in crossing their tracks, from the Dayton Gazette:

"A somewhat interesting case, involving the obligations of railroads to the public generally, was tried this week before the Montgomery Common Pleas. More than a year ago, Mr. Joseph Parkhill, who resides near Lebanon in Warren County, was approaching in a two horse buggy, the Greenville Railroad, at a point where it is crossed by the Wolf Creek pike, about four miles from Dayton. When he arrived within a hundred yards of the road he stopped—looked and listened but neither saw nor heard any indications of an approaching train. It was proved on the trial, that at a point eighty feet from the railroad it is visible for a considerable distance, at least, during those seasons of the year, when there is no foliage to intercept the view. Having satisfied himself that there was no danger, Mr. Parkhill threw himself back in his buggy, and drove rapidly on. Just as he was ascending the embankment, by which the pike crosses the railroad and had arrived within a few feet of the latter, a freight train crossed the pike directly in front of the horses, so frightened them that they wheeled off, and leaped down the bank, dragging the buggy after them. Mr. Parkhill was thrown out of the vehicle, receiving severe and permanent internal injuries, for which he claimed of the railroad company damages to the amount of \$15,000.

"It was proved on the trial that neither whistle was blown nor bell rang, as the engine approached the crossing. On the other hand, evidence was offered to show that the noise of the cars themselves can be heard further than either bell or whistle. The plaintiff accounted for his not seeing nor hearing the cars by the dampness of the weather, and the dense foliage, which in early

October was sufficient to screen the road from view. The defendants maintained that the plaintiff had neither taken proper precautions in approaching the crossing, nor proper care of himself after the accident. Judge Hart charged the Jury, that the defendants in the use of their road and machinery, were bound to exercise the utmost vigilance, and to neglect no means in their power to secure individuals from accident or injury, and this not only towards persons, who stood to them in the relation of passengers, but towards all other persons. The case was ably argued by Williams of Lebanon, and Corwin of Urbana for the plaintiff, and Lyman and Odlin for the defence. The jury were unable to agree, and were discharged after being out twenty-four hours."

### Miscellaneous and Mechanical.

#### IMPROVEMENT IN THE NAVIGATION OF THE OHIO RIVER.

Among the many important improvements that have been suggested for the promotion of the internal commerce of our country, there is none of greater interest or importance than that of improving the navigation of the Ohio river. Placed as this river is, almost on the "air line" between New York and New Orleans, the great central axis of the Union, its free navigation at all seasons of the year is a subject of paramount importance to every section. And when it is considered that the Ohio and the Mississippi, crossing diagonally the latitudes, form the most magnificent chain of inland navigation in the world, it will be readily conceded that the subject of perpetuating and equalizing the navigation of the upper waters of these streams, and especially of the Ohio, is one of the liveliest interest.

We invite the attention of our readers to the following communication on this subject, to the New York Times of Nov. 24:

#### THE DETAILS OF THE PLAN

As presented by the paper submitted, together with my own suggestions, may thus briefly be stated:

From Pittsburg to the mouth of the Ohio is about 977 miles, with an aggregate fall of 425 feet, divided as follows:

|                                     | Miles. | Fall in feet. | Average fall per mile in inches |
|-------------------------------------|--------|---------------|---------------------------------|
| Pittsburg to Wheeling.....          | 88     | 79            | 10.77                           |
| Wheeling to Cincinnati.....         | 374    | 188           | 6                               |
| Cincinnati to Louisville.....       | 156    | 55            | 4.2                             |
| Louisville to Portland (falls)..... | 3      | 25            | 100                             |
| Portland to Evansville.....         | 169    | 33            | 2.85                            |
| Evansville to Cairo.....            | 187    | 45            | 2.9                             |
| Aggregate.....                      | 977    | 425           |                                 |

It is assumed that to convert the entire river into slack water, would require only fifty locks, of an average lift of  $8\frac{1}{2}$  feet, which would create pools of an average length of:

|                                              | Miles. |
|----------------------------------------------|--------|
| Between Pittsburg and Wheeling.....          | 10     |
| Between Wheeling and Cincinnati.....         | 17     |
| Between Cincinnati and Louisville.....       | 25     |
| Between Louisville and Portland (falls)..... | 1      |
| Between Portland and Evansville.....         | 42     |
| Between Evansville and Cairo.....            | 37     |

The average fall of the river from Pittsburg to Cairo is a small fraction over 44-100 of a foot to the mile, so that not more than the proposed number of locks will be necessary.

There are few canals in the world, of any considerable length, with so small an amount of lockage in proportion to their length.

In order to give a series of deep pools, affording a safe and easy navigation for the largest steamers and the heaviest barges, it is proposed to raise dams eleven or twelve feet high from their foundations, causing the water of the pools to rise about two or three feet immediately above the dams, thus obviating the necessity for excavations below the locks, and giving at the lowest stage of water not less than five feet in the navigable channels at the upper ends of the pools. The Ohio river, so deepened and slackened, would be converted into the most stupendous and capacious canal in the world. Forming, as it does, the principal link in the chain of communication between the Atlantic States and the Great West, and traversing, as it does, a thousand miles of country of unsurpassed fertility and productiveness, it would be folly to attempt to assign limits to the amount of tonnage that would float upon its bosom.

The locks are proposed to be double, and of sufficient capacity to admit steamboats of the largest class, or four coal barges; these locks not to be raised more than sixteen feet above low water; for before the river should rise high enough to overflow locks of that height, the dams would cease to offer any obstruction to navigation.

#### THE COST OF THE WORK AND THE VALUE OF THE STOCK.

The estimated cost of the work is from seven to ten thousand dollars per mile, or from seven to ten millions of dollars for the whole work, which is supposed to be about half the expense of an ordinary canal, or about one-third the average cost of a railroad. Now, as it will be of ten times the capacity of either, and probably accommodate ten times the amount of business that a reasonably profitable canal has to do, it follows that the tolls need not be one-tenth as much as those assessed upon the tonnage of ordinary canals. The tax upon the business of the river may therefore be very light, and yet the work pay good dividends upon the stock.

As this is to be considered a national project, inasmuch as a large majority of the American people will participate in the benefits of the improvement, it is suggested that Congress should make a donation equal to at least one-third the entire cost of the work, not to swell the dividends of the stockholders, but to enable the company to make the navigation almost free.

#### ADVANTAGES OF THE PROPOSED IMPROVEMENT.

It would render the Ohio river permanently navigable, so that its immense and growing commerce would not be subjected to those periodical interruptions to which it is now liable.

Great inconvenience is experienced at Pittsburg for want of greater depth of water during most of the year. The channel of the Monongahela is deep but narrow during low water, while the Allegheny is shoal, and the current too strong for the advantageous use of tow-boats. A dam that would raise the water eight feet two miles below Pittsburg, would swell it at least six feet on both sides of the city—backing the Monongahela against dam No. 1 of the slack water, and rendering the Allegheny a slack water of good depth to some distance above Sharpsburg, thus affording a magnificent harbor for the commerce of the three rivers.



The economy of the propelling power would be an important consideration. The law of force, as applied to natural currents acting upon vessels, is, that it requires four times as much power to stem a current of two miles per hour, as it does to stem a current of one mile; the resistance offered by water to vessels moving through it being in the ratio of the squares of their velocity, so that a vast saving of propelling power is secured by slowness of movement. This principle is practically exemplified on the Hudson river, where from twenty to forty heavy barges and canal-boats are often attached to a single tow-boat, the whole fleet creeping along at the rate of from two to five miles an hour, according to the state of the tide. Thousands of tons are thus propelled by a single engine, at extremely low rates. Now, let the Ohio be converted into a deep slack water, and we should witness the same thing upon it, especially during low water, and freights would be carried cheaper there than during high water; because, owing to the gentleness of the current, tow-boats could carry almost any number of barges or canal-boats either up or down.

Again, boats would not then, as now, be compelled to be idle during most of the summer and fall months for want of water.—Neither would they be obliged, as they now frequently are, to start with half a load, and grind the bottom of their boats at that. Nor would they be liable to stick in bars and rapids, often at great expense and damage.

These advantages would render steamboats a more desirable species of property; and, although the rates of freight would be less, their yearly earnings would be more. It may be safely affirmed that a sure navigation, and a uniform tariff of rates, would bring a three-fold greater amount of trade to the river than would ever seek it, were things to remain as they are.

#### THE COAL TRADE.

It is but a few years since coal, in any considerable quantity, began to be shipped down the Ohio from the region around Pittsburg; but now, the shipments reach millions of bushels annually, and the quantity is rapidly increasing, and must continue to increase indefinitely. (In 1850, the total amount of coal received at Cincinnati was 4,500,000 bushels; this year it has been 10,350,000 bushels, and in this ratio it will probably continue to increase.)

The usual method of carrying coal to the lower markets at present, is to load it into square, flat-bottomed boats, generally a little over one hundred feet long, by sixteen to twenty wide, and about six deep, known as arks, flat-boats and "broad-horns." One of these boats will carry from 8,000 to 10,000 bushels, or from 280 to 330 tons. They are run in couples, and from twelve to fifteen men are required to manage them. They are rigged with several pairs of sweeps to urge them forward, and steering sweeps fore and aft to keep them in the channel. But in spite of these they are often stranded and lost, and the loss of the boat is not unfrequently attended with loss of life. It is only in times of high water that these boats can run at all, and then, too much coal is often thrown upon the market at once, to the great inconvenience of wholesale purchasers, and often to the serious detriment of the shippers. Never, perhaps, was there a great trade carried on more irregularly and fitfully. Sometimes there is so much coal at the

wharves of the large cities on the Lower Ohio, that purchasers cannot be found for it; at other times the supply is almost exhausted. In the course of a single season the price of coal in Cincinnati has risen from ten to forty cents per bushel. The boats are never brought back.

Barges about one hundred feet long, sixteen feet wide and five feet deep, are beginning to be used. Two of these are coupled together, and towed down and back by tow-boats. These, too, require high water and great propelling power.

Were the river converted into a slack water canal, a steam tow-boat could govern downwards and tow back more than five times as many as it now can, and then low water would be better than high, because less power would be required; and what is still more important, the trade would be prosecuted with safety and regularity.

#### THE CANAL AROUND THE FALLS.

I will here sustain this project by another reason, not presented to the Pittsburg Board of Trade. Should the Ohio be converted into slack water navigation, the canal around the falls would no longer be necessary; and thus a great nuisance would be abated, and a company of extortionists cease to exist. The canal is about two miles in length, and just wide enough to allow a second-class Ohio steamer to pass through it, receiving more or less damage in her passage through, which usually occupies from four to six hours, after oftentimes, waiting a day for a chance to get into it. The present rate of toll, I am informed, is twenty-five cents per ton, (until recently it was fifty cents,) so that it costs most steamers \$100 to get through, to say nothing of the damage to the boat incurred during its long passage and heavy thumpings against the solid walls of the canal. During most of the year, all vessels going above or below Louisville must pass through the canal; and some idea of the enormous amount thus levied upon the commerce of the Ohio may be formed from a few figures.

During the last year, ending on the 31st of August, 369 steamboats arrived at Cincinnati from New Orleans and St. Louis, and the departures for these two ports were 449—making a total of 818. The arrivals and departures from and for all other ports, except Pittsburg, is set down at 3,805, making a grand total of 4,623. Assuming that only one-half of these passed through the canal, we should have tolls from Cincinnati boats alone of about one-quarter of a million of dollars! Doubtless the canal tolls raised in ten years, by the proposed improvement, would pay for the whole work.

The constantly-increasing commerce of the Ohio certainly demands this, or some other improvement. A few days ago, the business men of Cincinnati were addressed in the Merchants' Exchange, by Gen. Leslie Combs, upon the progress and prospects of the Lexington and Danville Railroad, and by Col. Churchill, upon the Knoxville Railroad, which is now within thirty-two miles of the Kentucky line, and is rapidly progressing. The Danville road is completed within twelve miles, which will unite it to the Covington and Lexington road; and when the Knoxville road is finished, a scheme will be proposed to consolidate all the lines between Cincinnati and Charleston, S. C. By the union of the Knoxville and Danville roads, the trade of East Tennessee would all come to Cincinnati. The copper region of East Tennessee

was represented as being richer than that of Lake Superior; that five hundred wagons were now employed in conveying the ore to the Charleston Railroad, from whence it was taken to Savannah, and shipped thence to Boston and New York. The whole of this immense trade is destined to come to Cincinnati, furnishing, according to Col. Churchill, business for one hundred thousand more people than are now within the Queen City.

#### OBJECTIONS CONSIDERED.

The main objections to the proposed improvement are, that the dams would increase the disastrous effects of high floods, and that the ice would more readily impede navigation.

The dams being twelve feet high from their foundations, and the lift from pool to pool not more than eight or nine feet, it follows that a rise of water equal to sixteen feet in the natural channel of the river would restore the inclined plane corresponding to the natural fall of the river, and cause the water to flow on a level over the crest of the dams, except a slight depression just below them. When that is the case, the height of the flood is no greater in consequence of the dams. The inclined plane being restored, the volume of water in the river is urged forward with all the velocity due to the natural fall of the river, be it six feet or fourteen inches to the mile. The dams occasion a momentary acceleration, and nothing more. All fears, therefore, says the projector, of an increase of the disastrous effects of high floods, in consequence of the dams, may be dismissed as groundless.

Now, as to the Ice. Upon the setting in of cold weather, large quantities of ice form and float down the Allegheny and Ohio rivers. As the water falls, it grounds upon shoals and bars, and against the shores, and continues to accumulate until the river closes. Whatever floating ice comes down afterward, lodges against the barriers thus formed, and in this way all navigation is suspended until it breaks up and runs off. In the improved state of the river, the shoals and bars would always be covered with water, so that the ice would float over them; and therefore navigation would not be suspended then, as now, by icy barriers.

For a number of consecutive years the average interruption of navigation from this cause, on the Monongahela Slack Water, was only 15½ days. The pools become sheeted over like ponds, but the channel is kept open by the boats passing through it. The Ohio, if converted into a series of pools, would be affected by frost just as the Monongahela is; and as the business upon it would be vastly greater, the frequency of the passage of boats would keep an open channel all winter. So far, therefore, as the ice is concerned, there will not be half the obstruction to navigation, when the river shall be converted into a slack water, than there is in its present unimproved condition.

Such are some of the arguments in favor of this great work, the importance of which cannot now be fully appreciated. Already about one-fourth of the whole internal commerce of the country floats upon the bosom of the Ohio, and the future of the great States through which it sweeps gives promise of an untold increase, imperiously demanding new and improved channels by which to convey their hidden treasures and the fruits of their soil to the distant marts of trade.

V. V.







## RATES OF EXCHANGE.

| Place.            | Time.      | Buy'g | Sell'g.   |
|-------------------|------------|-------|-----------|
| On New York.....  | Sight..... | par   | 1/4 prem. |
| Boston.....       | Sight..... | par   | 1/4 prem. |
| Philadelphia..... | Sight..... | par   | 1/4 prem. |
| Baltimore.....    | Sight..... | par   | 1/4 prem. |
| New Orleans.....  | Sight..... | par   | 1/4 prem. |
| England.....      | Sight..... | 105   | 109       |

## SPECIE.

|                             |         |   |         |
|-----------------------------|---------|---|---------|
| California clean, 2 oz..... | \$17 60 | @ | \$17 65 |
| Spanish Doubloons.....      | 16 75   | @ | 16 75   |
| Patriot Doubloons.....      | 15 75   | @ | 15 80   |
| Sovereigns.....             | 4 86    | @ | 4 88    |
| Guineas.....                | 5 00    | @ | 5 00    |
| American, new.....          | 1 00    | @ | 1 00    |
| American, old.....          | 1 06    | @ | 1 06    |
| Portuguese.....             | 1 00    | @ | 1 00    |

## SILVER.

|                        |          |   |          |
|------------------------|----------|---|----------|
| American Dollars.....  | 1 03 1/2 | @ | 1 04     |
| American Halves.....   | 1 03 1/2 | @ | 1 04 1/2 |
| Spanish Dollars.....   | 1 14     | @ | 1 14     |
| Spanish Quarters.....  | 1 00     | @ | 1 01     |
| Mexican Dollars.....   | 1 05 1/2 | @ | 1 05 3/4 |
| Five Franc pieces..... | 97       | @ | 97 1/2   |

\* The standard English value attributed to the Sovereign is \$4.44 in London. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

## BONDS.

For the week ending December 5, 1855.

|                                                                     |        |            |
|---------------------------------------------------------------------|--------|------------|
| \$9,000 Cov'g. & Lex. R. R. Co., 6 per cent. Income Bonds.....      | 41     | (and int.) |
| 5,000 Cov'g. & Lex. R. R. Co., 2nd Mort. 7 per cent. Bonds.....     | 65     |            |
| 2,000 Cinc. & Chicago R. R. 10 per cent. Real Est. Bonds.....       | 36 1/2 | "          |
| 3,000 Little Miami R. R. Co., 7 per cent. Bonds, due in 1858.....   | 95     | "          |
| 1,000 Cov'g. & Lex. R. R. Co., 10 per cent. Income Bonds.....       | 65     |            |
| 3,000 City of Cov'gton, 6 per cent. Bonds, due in 1858.....         | 80     |            |
| 2,000 Cin., Ham. & Dayton R. R. Co., 7 per cent. Bonds.....         | 85     | "          |
| 700 Indianapolis & Cin. R. R. Co., 7 per cent. Dividend Bonds.....  | 68     |            |
| 500 Little Miami Dividend Scrip.....                                | 86     |            |
| 1,000 Cinc. & Chicago R. R. Co., 8 per cent. Real Estate Bonds..... | 32 1/2 | "          |
| 72 Shares Little Miami R. R. Stock.....                             | 90     |            |
| 200 " Cin. & Chicago, 60 days.....                                  | 10     | "          |
| 30 " Indiana Central.....                                           | 45     | "          |
| 44 " Dayton & Western.....                                          | 25     | "          |
| 119 " Covington & Lexington, 30 ds.....                             | 24     | "          |
| 50 " Col. & Xenia.....                                              | 83     | "          |
| 10 " Cin., Wilm. & Zanesville.....                                  | 30     | "          |
| 20 " Cin., Ham. & Dayton.....                                       | 66     | "          |
| 150 " Cin., Harrison & Ind.....                                     | 7 1/2  | "          |
| 100 " Mad River & Lake Erie R. R. 2 1/2 %                           | 22 1/2 | "          |
| 50 " Central Ohio.....                                              | 20     | "          |
| 150 " Ohio & Miss.....                                              | 5      | "          |
| 200 " ".....                                                        | 5 1/4  | "          |
| 50 " ".....                                                         | 6      | "          |

## LONDON QUOTATIONS

OF  
AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF  
E. F. SATTERTHWAITE, STOCK BROKER, LON.

Nov. 2, 1855.

|                                                         |   |     |
|---------------------------------------------------------|---|-----|
| Belvidere, Del., guar. 1st mort., conv.....             | @ | 87  |
| Chicago & Rock Island, Mort., conv. 1858.....           | " | "   |
| Cin. Ham. & Dayton, 2d mort.....                        | " | 80  |
| Erie, 3d Mortgage, 1853.....                            | " | 93  |
| " Sinking Fund.....                                     | " | 77  |
| Galena & Chicago.....                                   | " | 87  |
| Grand Trunk (Canada) Debenture.....                     | " | 89  |
| Great Western " conv.....                               | " | 106 |
| " " non-conv.....                                       | " | 102 |
| Illinois Central, 1st Mort., 7 1/2 %.....               | " | 69  |
| " " with option 70 per cent. shares till Jan. 1856..... | " | 72  |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill. Cent.....    | " | 74  |
| Little Miami 1st Mort. not conv. 6 %.....               | " | "   |
| Marietta and Cincinnati, 1st Mort.....                  | " | 80  |
| Michigan Central, conv. 8 %.....                        | " | 90  |
| N. York Central. No Mort. Not conv.....                 | " | 81  |
| " " conv.....                                           | " | 92  |
| Ohio and Mississippi, 1st Mort.....                     | " | "   |
| Ohio and Pennsylvania, Income 1872.....                 | " | 75  |
| Panama. No mort. conv. 1866.....                        | " | 97  |
| Pennsylvania, 1st Mort., conv.....                      | " | 86  |
| " " Sterling, 2d Mort.....                              | " | 88  |
| Steuersville and Ind., 2d Mort.....                     | " | 90  |

The quotations given are sterling quotations. The American values to be obtained by adding on exchange generally about 10 per cent.

## Monetary and Commercial.

The past week has been characterized by increased activity in general business. As the pork season advances money is in better demand and discounts more difficult to obtain. There is, however, abundant capital for the wants of the business community. We quote first-class paper abundant at 10 to 12 per cent., second class 15 to 24.

Eastern Exchange is in moderate demand at par buying and 1/4 premium selling. New Orleans par to 1/4 premium. Gold is 1/4 to 1/2 premium.

During the week the failure of the Banking House of Messrs. W. W. Cones & Co. was announced. In consequence of this failure, the notes of the Kanawha Bank were discredited at all the other Banking Houses. Holders, however, are not disposed to sacrifice on them.

Stocks have been dull during the week. The uncertainty attending the future of the Ohio & Mississippi R. R. has absorbed much of the attention of jobbers and withdrawn attention from other varieties.

For the state of the English market, we quote from the Circular of E. F. Satterthwaite, London, under date November 16, 1855:

"There has not been much business in London in American Securities during the past week. We note some small investments in Virginia Bonds, New York Central 7 per cent. Convertible, Erie Third Mortgage, Sinking Fund Bonds, Illinois Construction, and Free Land Bonds. Prices here had been so depressed by the tightness of money, and an anticipation of a decline on the New York market, and were so much below the late quotations on that side, that we have not much change to note, as they are now about current N. York rates. Purchasers are deterred to some extent from operating by the late violent tone of the English press, which appears to have worked up an injury and insult to the dignity of England, on the part of America, of which the American press seems wholly unconscious." Below we give the Circular of Robert Benson & Co., London, of same date.

GRESHAM HOUSE, OLD BROAD STREET,  
London, November 16th, 1855.

Our Money market during the last week has presented no new feature of importance. The demand for Money has been greater, partly caused, it is said, by large transactions in Breedstuffs and other produce. With the exception of Consols, little business has taken place in public Securities. These, which left off last Friday at 88 1/2 @ 89, have ranged between 87 1/2 and 88 1/2, and are to-day 88 1/2. This decline is mainly attributable to a reduced demand for investment, and perhaps also to some diminution of confidence on the part of the public. The Bank of England accounts, published on Saturday, showed that there had been very little variation in the amount of bullion held by the Bank, as compared with the previous return.

The Continental Exchanges still continue in favor of this country. The advancing prices of produce, however, and the upward tendency of our Corn markets, have given weight to an opinion that we may require large foreign supplies—that the Exchanges may thereby become less favorable, and that the return of specie, consequent upon the recent large exportation, may not be so certainly calculated upon.

The above appears to be the explanation of there being a less prevailing feeling of confidence during the past few days. Even if our home-growth of Wheat should prove, as many think, rather above than below an average, it nevertheless seems probable that, owing to the scarcity elsewhere, a high range of prices for Breadstuffs must, for some time at least, be looked for. In American Securities, transactions have been very few and prices are quite nominal. Illinois Central Construction Bonds were sold at 69 1/2; Shares at 5 discount New York Central 7 per cent. at 93. Erie Third Mortgage at 91.

Yours truly,  
ROBERT BENSON & CO.

## BALTIMORE STOCK SALES, DEC. 3.

|                                                   |        |
|---------------------------------------------------|--------|
| \$6,000 Baltimore and Ohio R. R. Bonds, 1855..... | 81     |
| 100 Shares North Carolina R. R.....               | 15 1/2 |
| 100 " Balt. and Ohio R. R.....                    | 51 1/2 |
| 50 " ".....                                       | b60 53 |

## NEW YORK STOCK SALES, DEC. 3.

|                                               |         |
|-----------------------------------------------|---------|
| \$15,000 U. S. G's, 68.....                   | 118 1/2 |
| 7,000 Indiana State 5's.....                  | 81 1/2  |
| 10,000 Virginia.....                          | 95 1/2  |
| 30,000 Missouri 6's.....                      | 88 1/2  |
| 5,000 Louisiana 6's.....                      | 93 1/2  |
| 2,000 Hud. River 3d Mort Bonds.....           | 66      |
| 8,000 Illinois Central.....                   | 77 1/2  |
| 1,000 " Freeland Bonds, with privi. lege..... | 80 1/2  |
| 5,000 N. Y. Cent. 7's.....                    | 103     |
| 65 Shares Gal. & Chic. R. R.....              | 118 1/2 |
| 500 " Nicaragua Transit Co.....               | 15 1/2  |
| 120 " Mich. So. and No. Ind.....              | 93 1/2  |
| 900 " Clev. & Tol. R. R.....                  | 70 1/2  |
| 300 " Chic. & K. I. R. R.....                 | 89 1/2  |
| 270 " Erie R. R.....                          | 46 1/2  |
| 200 " Reading R. R.....                       | 86 1/2  |
| 200 " Harlem R. R.....                        | 18      |
| 200 " Mich. Cent.....                         | 85      |

## SODA WATER APPARATUS!

THE ONLY PATENT CAST IRON  
SODA WATER APPARATUS  
IN THE UNITED STATES,

(Patented June 12, 1855.)

## FOR MANUFACTURING SODA WATER!

Also, every description of Apparatus, either for Drawing or Bottling of Soda Water. Also, the new SELF-TIGHTENING FAUCET, for water or any kind of Liquids, (Patent applied for 1855,) can be made of Brass, Lead, or any other metal, and Silver-Plated. It cannot be left open by carelessness or by children, nor be easily broken. It will out-wear any other Faucet now in use.

Also the new LUBRICATING APPARATUS, (Patent applied for 1855,) for oiling Valves and Cylinders and Throttle Valves of Steam Engines, Locomotives, Steam Pumps, &c. This Apparatus is Transparent, Self-Feeding, and not easily got out of order. It has a Glass Cylinder on the inside of a brass case, which holds the oil, and can be seen at any time when the oil is out. It will do either for Steam Vacuum or Journals. It is the best thing that could be made for Locomotives.

STEAM GAUGES on a new principle, manufactured and sold by

Dec. 5, 1855.—By  
WILLIAM GEE,  
58, Fulton Street, New York.

## THE PEN AND LEVER.

WE propose to commence, on the first Wednesday of January, 1856, the publication of a Weekly paper under the above title; to be devoted to the promulgation of information on all subjects pertaining to the useful arts. Each number will contain eight pages, of size and form convenient for binding, and will be illustrated with original Engravings.

THE PEN AND LEVER will be made a work of reference, particularly for inventors. To this end, an "Illustrated History of Inventions" will be given, in which they will be considered by subjects, and all marked and distinct improvements hitherto made, described; thus enabling the inventor, at a glance, to learn the present state of the subject under investigation, and thereby avoid the labor and expense of reproducing old devices. This History will be prepared with great care, and diligent research among the records of American and European Inventions, and is designed as far as possible to be comprehensive and complete.

It will also contain  
A summary of Scientific discoveries, and marked improvements in the Arts;

Descriptions and Illustrations of new inventions of peculiar merit and novelty;

Progress of important Public Works;

Essays on the Elementary Devices of Mechanics.

Lists of American Patents granted each week, including official copies of all the claims, which will be published the day after their issue.—This is practicable only in a paper published at Washington, where immediate access may be had to the records of the office. Similar lists of English, French, and other European patents published as soon as received.

Our facilities for procuring early and correct information on all subjects connected with a scientific publication, cannot be surpassed in this country, since we have access to the Governmental and Smithsonian Libraries, including the most complete mechanical and scientific Libraries in the United States, and to the vast repository of our Patent Office.

Our design is not to present a mere compilation of the floating knowledge of the day, nor information of doubtful authenticity or utility, but to take the lead in making known the progress of the Sciences and Arts, and always to furnish information of a substantial and reliable character. To the Manufacturer, the Mechanic, the Agriculturist, and the Inventor of every class, we shall endeavor to commend ourselves, and make the PEN AND LEVER a profitable, if not indispensable companion.

TERMS.—One Dollar a year, in advance. To clubs or agents sending lists of five or more subscribers, seventy-five cents per copy. [X] Subscriptions payable upon receipt of the first number. Address

dec5-1t  
E. P. HUDSON & Co.,  
Washington, D. C.

## Cincinnati, Hamilton, &amp; Dayton R. R.

SECRETARY'S OFFICE, CINCINNATI,  
December 1st, 1855.

At a Meeting of the Board of Directors of this Company, held this day, a dividend of 5 per cent. on Stock, was declared out of the net earnings of the road to October 1st, 1855, payable to the Stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York on and after the 15th inst., fractional parts to be paid in cash, at the rate of eighty cents on the dollar, at the option of the Stockholders.

The Transfer Books will be closed for ten days from this date.

Dec. 6-1m

FRANKS B. BOND, Secretary.



## THE SCHENCK MACHINERY DEPOT

AND  
**Leather Banding Manufactory,**  
No. 163 GREENWICH STREET,  
NEW-YORK,

KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

### Oak-tanned Leather Belting,

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR

Aug. 9 ly

D. D. MILLER,  
Manufacturer of

LOCOMOTIVE, RAILROAD AND HAND  
LANTERNS,

190 Water Street New York.

## THE MINING MAGAZINE.

IN the *Mining Magazine* for November is commenced the re-publication of the new and invaluable English work of WILLIAM TERRAN, on "The Manufacture, Theoretically and Practically Considered," with all the large Plates of Furnaces and Machinery in operation. It is the only treatise on the subject, except Mushet's papers, originally published half a century ago. The contents embrace descriptive details of the Ores, Fuels, and Fluxes, employed; the preliminary operation of Calcination; the Blast, Refining, Puddling, and Rolling Furnaces, Engines and Machinery; and the various processes in union; statements of quantities of material; period of time and amount of power consumed in the successive stages; cost of raising materials, and manufacturing crude and finished iron; and analytical researches into the causes affecting the Economy of Fuel in Blast Furnaces, &c., &c.

There are Twenty-Three Plates, all of which will be executed in the best style, and accompany the Text.

The *Mining Magazine* is published monthly at \$5.00 a year. Each number contains from one hundred to one hundred and twenty pages, octavo, and is devoted to every department of Mining and Metallurgy. The fifth volume ends December 1855. The work of Terran would be completed in about twelve numbers of the Magazine. Its cost alone is nearly triple the subscription price of the Magazine.

In the December number commences the re-publication of the great work of Posson on COAL MINING, translated from the French expressly for the Magazine, with all the splendid plates which accompany that work. It is one of the most important publications in regard to Practical Coal Mining knowledge. Its contents are briefly as follows: Chapter 1.—Practical Remarks on the Geology of Coal Regions.—Formation of Hanging Strata.—Search for Coal by Boring, &c. Chapter 2.—Means of Exploring Coal Strata by Levels.—Shafts—their Working, Supporting, Restraining Water, &c. Chapter 3.—Natural and Artificial Ventilation.—Illumination.—Burning of Coal Mines, &c. Chapter 4.—Mining Work and its Processes, with Examples from numerous districts, Belgium, France, Germany, England, &c. Chapter 5.—Hauling and Hoisting in Horizontal and Inclined Galleries, in Shafts, on the surface, &c.—Means of Ascending and Descending Mines, &c. Chapter 6.—Drainage.—Restraining Surface Water by means of Dams, &c.—also Pumps.—Connecting Rods.—Motive Machines, &c. Chapter 7.—Mining Economy.—Materials.—Tools.—Work and Wages of Laborers.—Estimated Costs of Mines, &c. Chapter 8.—Explanations of operations of Surveying in relation to Coal Mines, &c., &c.

The Plates are very numerous and expensive, all of which will be executed in the best lithographic style for the Magazine.

In adding these new features to the Magazine, the aim of the Editor is, to place within the reach of the Mining and Manufacturing Interests, at a cheap price, recent and most valuable information which is of such a costly nature as not to warrant its re-publication in this country as an independent enterprise. The price of Posson's work in the French is nearly \$40.00.

The Magazine also embraces in its pages translations from the German, on the "Dressing of Ores in the Hartz Mines;" and we have in course of preparation, with all the plates, the most valuable Treatise on Metallurgy, by KELL, two parts of which have been issued in Germany. In its usual contents, which will not be diminished, it comprises informations of Mines, Mining Operations, &c., in every part of the country.

This Circular is respectfully addressed to you with the hope that you will encourage this important enterprise by your patronage. Early attention is necessary to secure the series, as we shall not stereotype, or print more copies of the Magazine than are required by Subscribers. Address

W. J. TENNEY,  
Editor *Mining Magazine*,  
98 Broadway, New York.

November 22

## To Railroad Contractors.

SEALED proposals will be received at the office of the Edgfield and Kentucky Railroad Co. in Nashville, Tenn., until Saturday, Dec. 15th, 1855, for the construction of their Road, from Nashville to the Kentucky Line where it meets the Henderson & Nashville Railroad to Henderson on the Ohio River. The E. & K. Railroad is about forty-eight miles long, through a country well adapted to railroad construction, and the work will be divided into sections of about one mile each, which may be bid for separately or the whole road included in one proposition. Proposals may also be made to build the thirty miles only next to Nashville, either by single section or in one contract.

There are on the road, one tunnel half a mile long, heavy rock work at various points, and two large bridges. Maps, profiles and plans will be ready for examination by Dec. 1st, and any information may be obtained by addressing the undersigned.

SAM'L WATSON, President.

A. ANDERSON, Chief Engineer.

Nashville, Tenn., Oct. 20, 1855.

Nov 1.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m

New York, Aug. 16th, 1855.

## New Railroad Map.

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

Plain Lithograph,.....\$0.50

Colored Boundaries,.....0.75

Backed with muslin and varnished ready

for moulding,.....1.50

Mounted,.....2.00

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers.

Railroad Companies wishing a large number to circulate with reports, or to supply their various offices, will be allowed a corresponding discount.

Orders addressed to

T. WRIGHTSON & CO.,

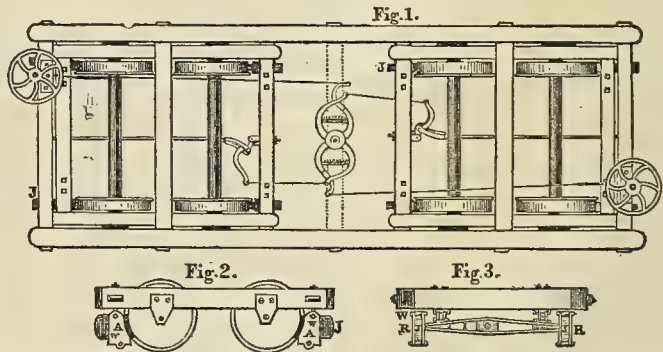
Publishers R. R. Record,

167 Walnut St.,

Cincinnati, Ohio.

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (w) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

We, the undersigned, hereby certify that we have seen the operation of a Railroad Car Brake, now in use on the Rutland and Burlington Railroad, invented by Mr. Lucius Paige, of Cavendish, in the State of Vermont, and are satisfied that it is the cheapest (taking into account repairs, &c.) and the best thing of the kind now in use.

JOHN S. DUNLAP, Supt. R. & B. R. R.

M. G. LITCHFIELD, Master Mechanic R. & B. R. R.

JOSIAH BOWTELL, Conductor R. & B. R. R.

A. W. WHITCOMB, Conductor R. & B. R. R.

SILAS L. PIERCE, Engineer R. & B. R. R.

E. WHITCOMB, Conductor R. & B. R. R.

P. R. DOWNER, Conductor R. & B. R. R.

J. F. STINSON, Road Master R. & B. R. R.

DANIEL ARMS, Conductor R. & B. R. R.

We, the undersigned, hereby certify that the Car Brake illustrated upon the preceding page, is now in use on the Lowell Railroad, and having made a satisfactory trial thereof, most fully accord to it a great superiority over any other Brake in use, embodying especially the advantages above set forth, and recommend it as being in all respects superior to any other.

June 15, 1855.

C. B. KING, Master of Machinery.

ENOCH HALE, Car Builder.

JARVIS CUSHING, Car Builder.

E. D. COLBY, Car Builder.

B. F. BAILEY, Car Builder.

WILLIAM SNELL, Car Builder.

EDWARD FOWLE, Car Builder.

WM. H. PETTINGELL, Depot Master.

DAVID R. KIRBY, Conductor.

P. A. PEARSON, Machinist.

The names above signed are those of practical men in our machinery department. Mr. King being widely known for his skill and good judgement, and any addition from me appears to be superfluous—but at the request of the patentee or inventor, I can and do cheerfully say, that the mechanical features of his plan are such as make the Brake superior to most, and second to none with which I am acquainted.

Nov. 1.

WM. PARKER, Agent B. & L. R. R. Co.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**  
**Railroad Depots and Station Houses,**

at current rates. **L. A. OSTROM,**  
ag. 16. No. 6 West Third Street, Cincinnati.

**RAILROAD IRON.**

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via, Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY,** Quebec & Kingston, Canada. **BERRY & WALKER,** Liverpool, England. Kingston, C. W., Sept. 15, 1855.



**T. N. RAFFINGTON,**  
**GENERAL ENGRAVER,**

North-East Corner Fourth and Walnut Streets, over Ohio Savings Bank,  
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**RAIL ROAD, STATE, AND COUNTY BONDS,**  
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Constantly on hand, Bank Note Paper, made to order of a superior quality.

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South-East corner of Main and Fourth Sts., Cin.

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**LITHOGRAPHERS & ENGRAVERS,**

No 115 Walnut St., Cincinnati.

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Beautifully executed and at moderate rates.

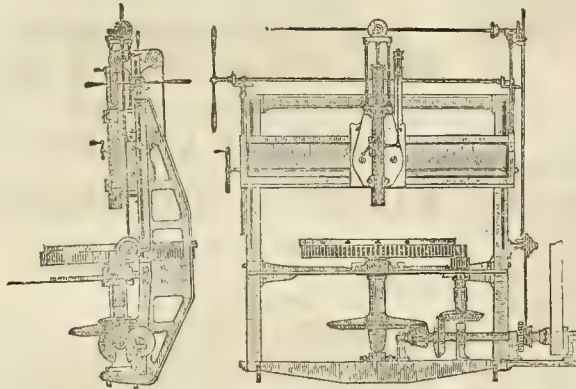
**Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.**

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**FOUNDERS AND MACHINISTS,**

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Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

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OF VARIOUS SIZES, TO SWING

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**Manufacture, in addition to their well known class of**

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**HANGERS & PEDESTALS;**

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**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

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**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**London Agency for Sale of Bonds &c.**

Messrs LANCE & Co., are making more generally known in England, the great advantages of American securities for investment.

During the present year Messrs LANCE and Co. have disposed of a large amount of American and Canadian Railway Bonds, and are fast extending their connections. They will be happy to correspond with parties having good American Securities for sale.

Messrs LANCE & Co. have had experience in the purchase and shipment of Iron, and offer their cooperation to those about to negotiate for the disposal of Bonds and the purchase of Rails.

P. S. Presidents of Railway Companies are requested to favor Messrs L. & Co. with Exhibits or Reports of their Companies as published.

10, Regent street, Waterloo Place, London,  
October, 1855. nov. 15-6m.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines, 28 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS, President.**

Also, for sale, two Twenty Horse Power Stationary Engines. Aug. 9-4t

**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

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**PERU & INDIANAPOLIS R. R.**

*Peru, Logansport, Wabash, Rochester, and Indianapolis.*

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Freight Agt.  
Indianapolis, October 1, 1855.

**THE KENTUCKY MILITARY INSTITUTE.**

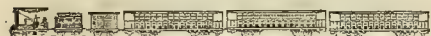
DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned,  
P. DUDLEY,  
President of the Board.

July 26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-11.

**Terre Haute & Richmond R. R.****Summer Arrangement.**

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**  
Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 24 hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.  
MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855

S. HUESTIS Superintendent.

**1855 FALL ARRANGEMENTS. 1855**

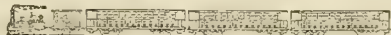
FOR THE

**EAST, NORTH AND WEST.**

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS IN OHIO.

Time as short to the Eastern Cities, as well as to Chicago and St. Louis, and Fare as Low as by any other Routes.

**Great Miami, [C. H. & D.]**

MAD RIVER AND LAKE ERIE,

CLEVELAND & TOLEDO,

AND

**EATON & RICHMOND RAILROADS.**

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

**FIRST TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo and Chicago. (This train starts by Columbus time, which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

**SECOND TRAIN.**

Indianapolis Express, at 6 A. M., for Indianapolis, and all points North and West.  
(This train also starts by Columbus time.)

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with steamer Bay City for Detroit; with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua.

**FOURTH TRAIN.**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

**SIXTH TRAIN.**

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

**SEVENTH TRAIN.**

Hamilton Accommodation at 5.30 P. M.

RETURNING.—Trains leave Dayton as follows: at 4.50 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M.

LEAVE HAMILTON at 5.54, 6.45 and 9.00 A. M., and 12.30, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Piqua, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Sup't. C. H. & D. R. R.  
E. F. OSBORN, Sup't. M. R. & L. E. R. R.  
E. B. PHILLIPS, Sup't. C. & T. R. R.  
D. M. MORROW, Sup't. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

**IRON BOILER FLUES.**

PASCAL IRON WORKS.

**MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,

PHILADELPHIA.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON, AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.20 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRTEENTH TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

Feb. 8-ly Wm Ropesute M NterOdn 1,pa

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

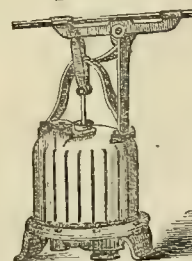
172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-ly



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
**WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.**

FOR FREIGHTS IN EITHER DIRECTION

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

## Philadelphia and New York Railroads.

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York.

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

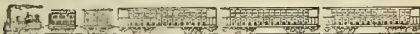
J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

TO LOUISVILLE  
IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8:30 A. M., and 3:45 P. M.  
FOR INDIANAPOLIS—At 6:45 A. M., and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8:30 A. M., 3:45 P. M., and 6 P. M.

FREIGHT—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at Offices, South East corner of Fourth and Vine; No. 4, East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.  
Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of  
**STEREOTYPING,**

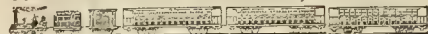
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of  
**Card and Job Type, Cuts, Rules, &c. &c.**  
from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

1855. New Arrangement, 1855

## COMMENCING MONDAY, JULY 16.

LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M.,  
10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both  
to and from Cincinnati and the East.

LAID WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¼ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30¾ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburgh in.....   | 14 "      |
| To Philadelphia in..... | 30¾ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburg, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburg, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburg, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2:30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## Covington and Lexington Railroad.

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terrehaute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7:25 A. M., stopping at all regular stations, and arriving at Lexington at 12:15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6:45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryansville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11:20 A. M.

Returning, leaves Covington at 2:30 P. M., stopping as above, and arriving at Lexington at 7:40 P. M.

FREIGHT TRAINS will leave the Depots in Covington and Lexington, daily, at 6:40 A. M.

## RATES OF FARE.

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthia.....    | 2 00   |

## FOR THROUGH TICKETS

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent.

The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw. Madison and Scott, Covington.

CLAYTON &amp; GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road. nov.15\*

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

## VIA LAWRENCEBURG,

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 4:45 A. M., 1:35 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1:35 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

Cincinnati, Nov. 1, 1855. SIDNEY RICE, Agent.

## W. G. ATKINSON,

Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

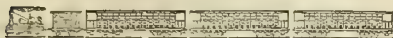
RAILROAD routes located, planned, and estimated  
Maps and Reports furnished; Researches made for  
Coal, Iron, Copper, Lead, or other Minerals,  
Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared. mar-17



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

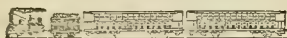
Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
J. S. F. OLIMSTED, TENNIS & PECK,  
Louisville, Ky.

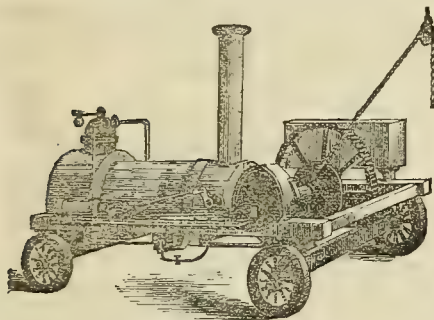
**Norris' Locomotive Works,**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,  
S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Prinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

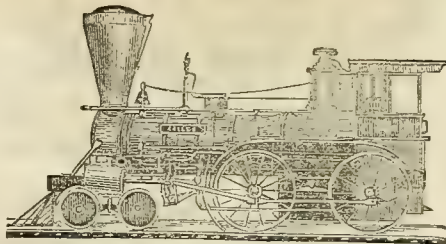
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the MERCURIAL GAUGE, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DEAN, FULTON and TILTON.

Manufactured by J. M. BROWN,  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars.**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 percent. below that of most boxes in use. They will save about 75 percent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs. ONE TENTH part of the time which is necessary when other boxes are used. The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

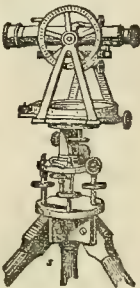
The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.**

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF  
**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames'

Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car,

Conductor's, Signal, Switch, Stoker and other

Lanterns. Drawbridge and cross Road

signal Lights; Gun Packing and

Hose, assorted Car Trimmings, and

Enameled head and seat

Linings, Plated and

White Metal Letters.

—ALSO—

Machinists' Tools,

particularly adapted to

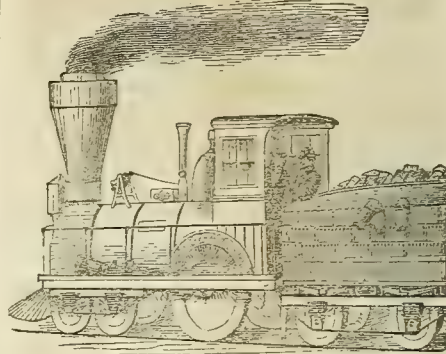
Railroad Work, Mill Work,

Shafting and Shop outfits, Punch-

ing and Shearing Machines, for Boiler

Works, Planers, Lathes, Drills, Portable

Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 MOORE & RICHARDSON.

**WASON'S  
CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T. & F. Wason, Springfield, Massachusetts.

**Railroad Car Findings  
BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Casting Fit

Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

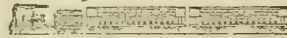
Late Davenport & Bridges, Car Manufacturers.

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.

toc6

**CAR MANUFACTORY,**  
Dayton, Ohio.

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tycers, Harris Patent; portable bolt forges; loft heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

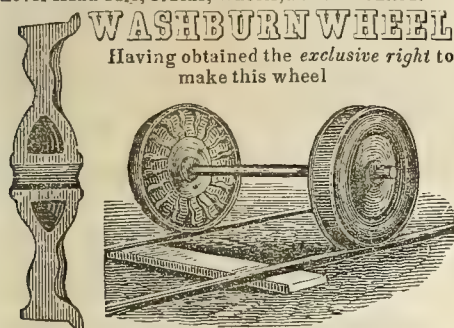
Dayton, Jan. 24th. 1853.

Jan. 25-1



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

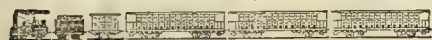


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
auctf. Muskingum Works, Zanesville, O.

**J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL**  
**DAVENPORT, RUSSELL & CO.,**

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

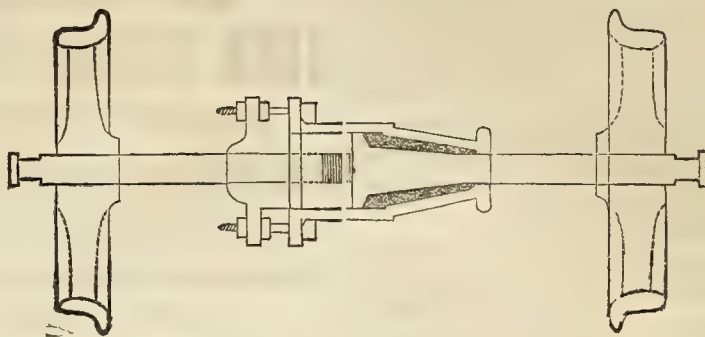
We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16/87 **JOSEPH DAVENPORT.**

### S. C. THOMSON & CO.,

MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
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N. 12th NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

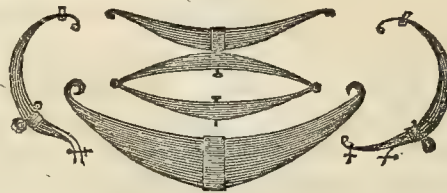
**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

37104

## M<sup>C</sup>DANIEL & HORNER,

**LOCO-MOTIVE AND CAR SPRING**



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to  
**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.  
References.

**NORRIS BROTHERS,** Locomotive Builders, Philad.  
**A. C. GRAY,** Prest. New Castle Manuf. Co.  
**U. WELLS,** R. R. Car Manuf. Petersburg, Va.  
**I. R. TRIMBLE,** Supt. Philad. R.R. Co.  
May 19.

**M. B. MILLEN,** Gen. Supt. C. R. R. Savannah, Ga.  
**EMERSON FOOTE,** Supt. M. & W. R. R. Macon, Ga.  
**THOMAS DOUGHERTY,** Master Mach. do.  
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## DURYEE & FORSYTH'S PATENT PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.  
**HEWSON & HOLMES,**  
dec27 63 and 65 Walnut Street.

## THOS. M. CASH, PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

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### REFERENCES.

**Richard Norris & Son,** Locomotive Builders, Philad'a,  
**Wm. D. Lewis,** Esq. Pres't Catawissa R. R. Co. "  
**Charles H. Fisher,** Esq. "  
**Jno. Caldwell,** Esq., Pres't S.C.R.R. Co. Charleston, S.C.  
**Pinckney Huger,** Esq., Pres't N.E. R. R. Co. "  
Oct. 13-14.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,  
90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. FOSTER, Jr.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENNA. R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,  
H. J. LOMBAERT, Superintendent.  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED

## IRON BOILER TUBES, Prosser's Patents.

## TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES, For Smith's use, and WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

### CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES, For Railway Wheels. Railway Axles and Springs, SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

## FRIED. KRUPP,

Essen Rhenish Prussia.

Represented solely in the United States by

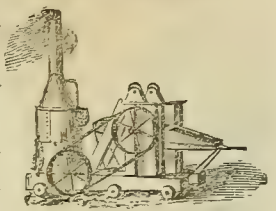
## THOMAS PROSSER & SON,

28

PLATT STREET, New York?

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

nov17+

G. ARTHUR GARDNER,  
Trinity Building, N. York.

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

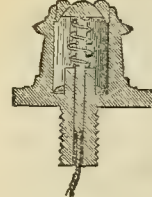
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



OIL  
CUPS



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

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Has constantly on hand

GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND  
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Publisher of the

Railway Map of the Western States,  
In Sheet or in Pocket Case;

The LARGE SECTIONAL and RAILWAY MAP of OHIO  
the LARGE MAPS OF CINCINNATI, and HAMILTON Co  
Ohio, and the TOWNSHIP MAPS of INDIANA and IOWA.  
MAPS OF EVERY DESCRIPTION.



# Railroad Record.

E. D. MANSFIELD, - - - Editor.

W. WRIGHTSON, { Associate Editors.  
T. WRIGHTSON, }

CINCINNATI:

THURSDAY MORNING, DECEMBER 13, 1855.

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Messrs. ALGAR & STREET, of the London Provincial  
and Colonial Newspaper Advertisement Office.

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London, England.

## Railroad Record

PUBLISHED EVERY THURSDAY MORNING,

By T. WRIGHTSON & CO.

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CINCINNATI, WILMINGTON AND ZANESVILLE RAILROAD.—This road has, at length, we learn, been completed, and cars are now running directly from Cincinnati to Zanesville. The whole length of the road is 132 miles, and it makes the nearest route from Cincinnati to Wheeling, and thence on to Baltimore, now in operation.

This road was chartered in February, 1851. It was based originally on county subscriptions, which were liberally obtained in the Counties of Clinton, Fayette, Pickaway, Fairfield and Muskingum. The principal events in the history of the road are as follows, viz :

Survey of the road commenced at Morrow, July, 1851.  
Let to De Graff & Co., November 1851.  
Tracklaying commenced April, 1853.  
Commenced running to Wilmington, August, 1853.  
“ “ to Washington, November, 1853.  
“ “ to Lancaster, April, 1854.  
“ “ to Lexington, August, 1855.  
“ “ to Zanesville, November, 1855.

Finished in less than four years under the management of Franklin Corwin, Esq.

VOL. 3.—No. 42.

### THE AXIS AND MOVABLE CENTER OF THE UNITED STATES.

In all material bodies subject to motion, there is a *center of motion*, as well as a *center of gravitation*. These are not always the same. The center of *motion* depends on velocity and direction, as well as weight. Then, in a great, increasing and progressive nation, there is an axis, and centre of motion. The center of business and numbers continue to move onward, on what may be called the axis of *Human Movement*. The determination of this center and axis determines also the axis of commerce, and the line of greatest *stability* as regards external forces. In the United States these principles are forcibly illustrated, in the line where the centre of population moves; for that line is also the main line of emigration, of internal commerce, and of national stability. It is on that line, therefore, that the great axis of *railway motion* must ultimately be; for all things *tend to it, and nothing from it*.

The axis of *motion*, in the United States, has been remarkably stable. The whole human movement has been to the West, but it has been almost exactly on the same line of latitude. In 1790, the dividing line of population in the United States was very nearly up to the line of 40°. In 1820, an interval of thirty years, it had varied but little from it; and in 1850, another period of thirty years, it had descended not quite to the 39th degree; thus keeping almost the same direction. The variation to the South is caused by the great bend, or descent of the Lake Basin, causing a portion of the territory in the latitude of New England to be thrown into Canada. To compensate this, the line of population has descended the Ohio Valley. In fact, the Ohio river is very nearly on the axis of human movement; though when it passes the longitude of the west end of Lake Erie, the axis again ascends, crossing the Mississippi near St. Louis.

On this axis of motion, commencing near Philadelphia and proceeding to St. Louis, moves the great *center of population*, which center controls, relatively, the growth and commerce of the Union. This center of population is a little different from the center of *representation*, but may be ascertained by it. The center of representation commenced near Lancaster, Penn., then deflected into the edge of Maryland; then turned a little North, and is now in Washington county, Ohio. It is now moving in the general direction of Dayton. As two-fifths of the slaves are *not represented*, it follows that the center of *population* is a little south of that of *representation*. It is now very near Parkersburg, Va. Thence it will pass on, striking a little north of Cincinnati.

The determination of this axis of motion and movable center of population carries with it,

necessarily and absolutely, the *center and movement of commerce*. There are several modes of determining this. Let us apply two or three.

1. Let us compare, within the same lines of longitude, the principal commercial cities of the Lake Basin, of the Ohio Valley, and of the Southern Atlantic, within the parallels of 79° and 91°, which includes all the great towns west of the Allegheny range.

#### 1. TABLE OF TOWNS IN THE LAKE BASIN, ACCORDING TO THE CENSUS OF 1850.

|                |                             |
|----------------|-----------------------------|
| Buffalo.....   | 42,260                      |
| Erie.....      | 5,858                       |
| Cleveland..... | 23,405 (includes Brooklyn.) |
| Sandusky.....  | 10,000                      |
| Toledo.....    | 3,829                       |
| Chicago.....   | 29,963                      |
| Detroit.....   | 21,019                      |
| Milwaukee..... | 20,061                      |
| Galena.....    | 6,004                       |
| Dubuque.....   | 3,108                       |

Aggregate.....155,507

These towns have greatly increased since 1850; but as the cities will be compared at the same date, it will show the relative populations of each section.

#### 2. TABLE OF TOWNS IN THE OHIO VALLEY, AND THE MISSOURI, BY THE CENSUS OF 1850.

|                             |         |
|-----------------------------|---------|
| Pittsburg and environs..... | 75,102  |
| Steuenville.....            | 7,224   |
| Wheeling.....               | 11,435  |
| Marietta.....               | 3,175   |
| Portsmouth.....             | 4,011   |
| Maysville.....              | 4,259   |
| Cincinnati.....             | 115,435 |
| Covington and Newport.....  | 15,303  |
| Madison.....                | 6,012   |
| Louisville.....             | 48,194  |
| Evansville.....             | 8,235   |
| St. Louis.....              | 77,850  |
| New Albany.....             | 8,181   |
| Lawrenceburg.....           | 2,651   |

Aggregate.....379,064

#### 3. TABLE OF TOWNS ON THE ATLANTIC COAST, BETWEEN 79° AND 91° OF LONGITUDE.

|                    |         |
|--------------------|---------|
| Charleston.....    | 42,985  |
| Savannah.....      | 15,312  |
| Augusta.....       | 11,763  |
| St. Augustine..... | 1,934   |
| Pensacola.....     | 2,164   |
| Mobile.....        | 20,115  |
| New Orleans.....   | 116,375 |

Aggregate.....211,038

Most of the towns and cities in the above tables have increased greatly since the census of 1850; but the *ratios*, as regards the Ohio Valley, have not materially changed. The population of the cities and towns in table 2 (Ohio Valley) is yet fully equal to that of both tables 1 and 3, (those of the lakes and the Southern Atlantic,) although the towns in No. 1 (lakes) have gained largely on those of No. 3 (Southern Atlantic).

Here we find developed, in a remarkable degree, the *tendency of population to increase in density as it approaches the axis of human movement*. It is precisely the same law as that which increases the throng on the leading street of a city. Directly or indirectly, all other currents tend there. And this is so much a law of *necessity*, that nothing does or can create so large cities anywhere on the borders or lateral currents of the great human movement.

We may add to this illustration from population another, derived from the tonnage of navigation; that while we give the ocean and the lakes full credit for their sail vessels, we also give the Ohio and Missouri credit for



their flat boats, which carry on a large portion of river commerce.

Tonnage of the lakes.....184,849 tons.  
Tonnage of the Ohio and the Missouri.....369,896 "  
Tonnage of the Southern Atlantic.....246,731 "

This is taken from the returns three years ago. Some changes have taken place since; but, in the aggregate, the commerce of the Ohio and Missouri Valleys still exceeds either of the other divisions.

We need not pursue this subject farther at present, but will merely remark that the *axis of human movement* lying substantially in the valleys of the Ohio and Missouri, it follows that those railways which coincide in the main with that axis, and those which tend to its commercial foci—such as Pittsburg, Cincinnati, Louisville and St. Louis—must eventually, in consequence of being central lines, have the most business and be the most profitable. Then the great lines of the Pennsylvania and Baltimore roads proceeding from Pittsburg and Wheeling to Cincinnati, and thence to St. Louis, will form, when entirely completed (as we trust they soon will be), the great CENTRAL AXIS of railway movement—passing through the greatest cities of the West, and carrying the mighty tide of domestic produce, which, gathered in from lateral roads as the river gathers the rills, concentrates in the great stream which flows to the marts of consumption. The line of locomotion will, in the main, correspond with the line of human movement.

#### THE OHIO AND MISSISSIPPI R. R., EAST END.

The President and Directors are now making a strenuous effort to get \$1,500,000 of the Third Mortgage Bonds of this Company taken in Cincinnati. There is no doubt of the ability of the men of business and property in Cincinnati to take this loan, easily and readily. There is just as little doubt that would be the most profitable investment which the men of Cincinnati can make in a public work. Yet, strange as it is, there is a constant tendency in the minds of men, like the dog and his meat, to grasp at shadows and neglect the substance. More business would be brought to this city by a line like that, in a single year, than would double the whole loan; more profit than would pay 20 per cent. upon it; and that business and profit would flow to all men of business and property. Yet, in the face of this demonstrable fact, they are either willing to go without the road or expect other people to make it for them. Some of them are actually waiting for the bondholders to make it! But this, we are quite certain, is a great delusion. The loan on the Eastern Division, in all, is \$3,550,000. The interest on it is \$248,500. The eighty-seven miles now running is making a net profit of \$180,000. Twelve or fifteen miles farther to the White River valley is graded, where great amounts of produce can at once

be had. It is plain enough that if that small piece be finished, (which it can be for a small sum,) that that 100 miles, prudently managed, will pay the interest on the bonded debt forever. The bondholders, therefore, will not make the road any farther.

It is plain, therefore, that Cincinnati must make the road, or be contented to go without it. The latter alternative would argue little for either the sagacity or enterprise of the great city of the West.

#### RAILROAD MISNOMERS.

A few days since we rode in an omnibus, about to go to the depot of the Little Miami Railroad. The driver, in asking for the fares, was handed a ticket, which he said was not a ticket for that omnibus line. "Why not?" said the passenger: "I got it at your office." "Where?" asked the driver. "At the corner there." "That cannot be; this is not our ticket. Which corner?" "That, over there." "Ah! that is not our office; let me see your railroad tickets." They were handed out, and it appeared that the poor traveler had tickets for the "Great Miami Railroad;" in other words, the "Cincinnati, Hamilton and Dayton Railroad." It was too near the hour of leaving to get to the other depot; the consequence was, the traveler lost a day. It is very easy to say that this difficulty was the traveler's own fault; he should learn the difference between *great* and *little*. But there is no such difference between Great and Little Miami, that any stranger might not easily be mistaken as to the road. If we are not mistaken, corporate bodies can use only their *legal* name. At any rate, it is a great pity that such misnomers should occur; for, although it may be fun to the companies, it is misery to the poor travelers, who alone bear the wrong.

#### DRONING SATURDAY NIGHTS.

There is a vicious practice on some roads that we could mention, of droning on the last trains of the week. The managers of the trains think, "Well, we have no connections to make; it is Saturday night, and we can afford to take it easy." Such a practice is unjust to the traveler, and detrimental to the interests of the road. The traveler, when he starts upon a railroad train, has a right to expect to be carried to the place of his destination in the usual and advertised time, unless some unforeseen and unavoidable accident intervenes. He does not expect, and it is not fair that he should meet with detentions, of sometimes *hours of time*, simply because it is *Saturday night*. The time wasted in this manner, for business men, is sometimes precious, too precious to be thrown away, and serious interests often endangered. We traveled recently over a railroad leading from New York city, under circumstances which rendered undue detention anything but agreeable, and lost in a short journey nearly an

hour. No other reason, that we could learn, was assigned for the delay than that it was Saturday night, and there was no need of hurrying. There was on that train at least one hundred business men, used to promptitude in their own engagements and expecting it from others; and had there been no other inconvenience attending the loss of time than the mere disappointment of those travelers, it would have been a serious matter. But there was. Engagements were broken, the loss attending which could not easily be repaired.

But this is not all. Droning at any time is unsafe, even for a double-track road, much more for one with a single track. Time tables are arranged for trains *in time*, not for trains *out of time*. And if one train or every train drones out of time, endless confusion must result in the management of the road. Accidents are liable at any moment to happen, and it becomes a matter of serious, very serious consequence, in point of safety, not only to the road but to the traveler.

But aside from the danger and inconvenience, the character of the road must suffer in consequence of such a course. Travelers remember well *where* they have been inconvenienced once, and endeavor to avoid it in the future. The character of the road suffers; people avoid it when they can, and competing lines frequently reap a harvest of business which would legitimately belong to the laggard company.

#### THE RIGHTS AND LIMITATIONS OF CREDITORS OF RAILROAD COMPANIES.

As many railways are just now in rather a precarious condition as to credit, the *Railway Times* very opportunely publishes the following decision, given about ten years since, in the case of the *Dartmouth and Roanoke* Railroad Company of Virginia. Mr. Francis E. Rives bought the road at sheriff's sale, and proceeded to take up and remove the iron, &c. For this he was indicted and tried. The real question is—*what were the real rights of a creditor when he had purchased under execution?* As we imagine there are very erroneous ideas afloat on this subject, we copy the decision from the *Railway Times*:

"The right of the Legislature to condemn private property for the purposes of the road, as the land over which it runs, the wood, stone, gravel and earth, required for its construction and repair, can only be derived from the fact that the road is for the public benefit, and is to be used as a public highway. To consider the road as mere private property, is to suppose the Legislature has taken the property of certain citizens without their consent, and vested that property in certain other citizens for their individual benefit; whereas, to consider it as a public highway with certain *incidental private interests*, fully sustains the authority of the Legislature to make the condemnation. It is a principle of the common law which expands and adapts itself to new



cases as they arise, that whenever the public has a right, and that right is invaded, the offender is liable to indictment, and in the case of a railroad constructed like the one under consideration by a joint stock company, although the company has a private interest, that interest is *incidental*—is secondary, and must be enjoyed so as not to defeat the paramount object, and one which is essential to the creation and existence of the road—the *public right*. If, therefore, the company should take up the whole or a part of the road, not with a view to repair or replace it with better materials, but with a view to obstruct and hinder the public in the use of it, it would fail within the principle, and the individuals offending would be liable to indictment."

The Court decided that no title passed to Rives, in his purchase at sheriff's sale, because the superstructure was not subject to execution sale. *The company may sell the materials before they are laid down, but as soon as they become a part of the road, the public right attaches, and neither the company nor a purchaser can tear up or remove that part of a public highway.* In reply to objections that a company having incurred debts cannot, by principles of law, hold property which creditors cannot reach, Judge Pearson says:

"The company, at the time of its creation, agreed to perform certain services to the public; after its creation, it incurred liabilities to individuals—as both cannot be discharged, the right of the public must be preferred, because it is first in time and first in importance, and because the individuals, who gave credit, did so with a full knowledge that the company had this public duty to perform, and one claiming under a creditor has no right to complain, because he is not permitted to do that which would prevent the performance of this public duty."

According to this decision, therefore, railway iron, sleepers, or other superstructure, once having been laid upon the road-bed, cannot be removed or taken up, no matter whether they are owned by the company or not.

This decision suggests another idea, that a company chartered for the public benefit *cannot sell, or defeat, the charter or purchase*; and, consequently, there is always a remaining or subsisting interest in the *company*, as well as the *public*.

#### FLAG-MEN—ROAD CROSSINGS.

On the New York Central Railroad we observed, in a recent trip, that a flag-man was stationed at every road-crossing, however numerous they were. We need not say, that the fact that a white flag was waving wherever we crossed a road, gave us, and we doubt not others, a feeling of security that added much to the comfort of traveling. We have seen roads where flag-men were stationed every mile, irrespective of crossings; wherever the mile-post was, there was the flag-man; and we have traveled frequently where we saw their little white flags flung hastily to the breeze on the approach of trains, and yet we have seen carriages dash over the track on these very roads, almost in front of the locomotive. Now there was no lack of flag-

men on these roads, but they were not stationed at the right places. A little common sense and good judgment, with less of the rigidity of arbitrary rule, would have sometimes placed those men a few rods from the mile-post and stationed them at a road-crossing, which would otherwise have been unprotected. The flourish of trumpets that is sometimes made about flag-men at every mile, is of little avail, if those mile-posts do not fall where they are most needed. We trust that every road will take the precaution to have its crossings fully protected.

#### GEORGIA RAILROADS—STATE AID.

A bill has been introduced into the Legislature of Georgia, to extend State Aid to the South-eastern, North-western, Savannah and Brunswick Railroads. The bill provides aid at the rate of \$6,000 a mile, after 30 miles of each has been put into operation, to the South-western, the Savannah, Albany and Gulf Road and its branches, and to the Brunswick and Florida Road and its branches, the amount to be furnished to the first not to exceed \$500,000, and to the two last not to exceed one million each.

The 4th Section is as follows:

"And whereas it is very desirable and important, if the contemplated Railroad line leading from Knoxville, Tennessee, through the county of Rabun in the State of Georgia, to the Railroad communications of South Carolina, shall be built from the northward as far as the town of Clayton in said county of Rabun, or its vicinity, that there shall be a Railroad from said town of Clayton or its vicinity, connecting with said contemplated Railroad line, to the line of the Georgia Railroad, so as to afford full railroad connection between the Western States and a large majority of the people of this State: Be it therefore further enacted, That whenever it shall be made satisfactorily to appear to his Excellency the Governor of this State, for the time being, that said contemplated Railroad line leading from the north or north-west through the said county of Rabun shall be built at least as far down as said town of Clayton or its vicinity, and whenever, also, any one incorporated R. R. Co., now in being or hereafter to be incorporated, shall build, construct and open for constant public transportation and travel, thirty miles of railroad leading from the Georgia Railroad by Athens, in the county of Clarke, towards said town of Clayton in Rabun county, or its vicinity, there shall in like manner and upon like conditions and security be granted to such Railroad Company, so building, constructing and opening for constant public transportation and travel thirty miles of railroad leading from the Georgia Railroad aforesaid, like bonds of the State of Georgia to the amount of two hundred and ten thousand dollars, and upon the building, extension and opening for constant public transportation and travel of each additional section of ten miles of such railroad leading towards Clayton aforesaid, there shall be granted in like manner to such company, building and opening such Road, like Bonds, on like condition and security, to the amount of seventy thousand dollars, until the whole amount of Bonds received by such Company last referred to shall amount to the sum of one million of dollars."

The bill, after describing the bonds, further proceeds to require that the President and Directors of the various Companies shall reside and all their meetings be held in the State of

Georgia, secures the State against loss by a lien on the roads, and provides for the payment of interest. Two years are allowed the companies to comply with the requisitions of the bill, and five years to complete their roads. The Savannah *Journal* makes the following remarks in reference to the bill:

"The plan of joining in one bill *all* the roads which are really needed by the people of Georgia, and likely to be profitable when built, and furnishing a reasonable amount of aid to each—discarding such schemes as are of a merely local character—is eminently wise and proper. The first road mentioned is the South-western, which (if we recollect rightly) by the terms of its charter looks to an extension down between the Chattahoochee and Flint Rivers. The route is through one of the most fertile sections of the cotton growing States—a section which having paid liberally into the State treasury ever since its settlement, deserves liberal treatment from the law-makers of the State. We mention next the road to connect with the Rabun Gap, because this and the South-western will be in a certain sense supplements of each other. Their completion will secure communication diagonally through Georgia from South-west to North-east, as it already exists from South-east to North-west—that is, from Savannah to Chattanooga.

The claims of the roads from Brunswick to Thomasville, and from Savannah to Florida, have already been stated in our columns. They traverse a section greatly needing facilities for transportation. Brunswick, the Eastern terminus of the first, though we do not believe it will ever become a great city, may be made a thriving town. Savannah, the Atlantic terminus of the other, has ever borne a most important portion of the burthens of the State in the revenue which she has paid, and on this, if no other ground, may ask that the Legislature shall regard with favor an enterprise in which she is so deeply interested."

#### TRANSFER OF STOCKS—INCREASED SECURITY NECESSARY.

Stocks have long been an article of merchandise in the market, just as flour and produce, and change hands much more frequently than the uninitiated are apt to imagine possible. This is especially true of the Wall street market, and any other great market where capital is continually seeking either investment or speculation. The process of transferring a piece of stock from one person to another is, therefore, no unimportant one to the company or the possessor. This is generally done by a certificate of transfer, recorded in the authorized transfer office of the company; and to accomplish it, it is not necessary to produce the original certificate of stock, or any other evidence than that a certain number of shares stand to the credit of the party making the transfer on the books of the company,

This system, while it may have been quite adequate to the wants of the business years ago, presents many defects which should be remedied. It is evident, in the first place, that the transfer books of the company are the highest evidence of ownership of the stock. The original certificate is evidently entirely set aside, because it may have been authorized to be transferred, and a new one not yet issued in its stead; or an over cautious party, fearing to lose the certificate, may choose, if he please, not to take it, but to have his account with the



company merely credited with the number of shares which he owns, and trust to the books of the company for proof of his ownership. Now, such being the case, the transfer books being the highest evidence of ownership, it is easy to see how a dishonest transfer agent may so garble the books as to palm upon the market stock which never had an existence. It is in this manner that the Schuyler frauds were committed, and that we may expect others to be committed, unless some other guards are placed around the transfer of stocks.

Among the plans already adopted is that of having a second responsible party to act as a check on the transfer agent, making his signature, as well as that of the agent, necessary to the transfer. In addition to this, the New York Central Railroad have made the possession of the certificate also necessary. A party wishing to make a transfer of his stock must deliver to the party to whom he would transfer it, not only the authority to have the transfer executed, but the certificate of stock with the authority endorsed on it. This course is objected to on the part of some of the brokers, because, they say, it interferes with the frequent transfers of the same stock in one day. The objection thus urged has but little foundation, as it is evident that the first holder may sign the power of transfer, leaving the name to which he transfers it open to be filled by the last holder.

The effect of this system is plainly to remove the responsibility of the transfer from the company to the holder and receiver of the stock just where it should be. It is to be hoped that this, or some other equally secure system of transfers will be universally adopted. We shall then have less cause to fear wholesale depredations on the stock of our companies.

#### HANNIBAL AND ST. JOSEPH RAILROAD.

We learn from the Hannibal (Mo.) *Messenger*, that on Nov. 29, the track-layers commenced work on this railroad in good earnest. They commenced operations at the freight depot, and will follow the track on out. The grading on the track has been finished for a distance of twenty-five miles, and all of it is ready for the iron rails, with the exception of the South River Bridge. We learn that the men who have charge of the track-laying are energetic business men, and that they will push the work ahead as fast as possible.

On Dec. 6, two locomotives arrived for the road. It is hoped that the road will be opened to Palmyra before the winter frosts prevent further operations.

#### MISSOURI RAILROADS.

It is said that the Governor of Missouri has vetoed the bill passed by the Legislature granting *State aid* to the railroads. If so, he has pretty surely vetoed all the railroads in the State, except the *Hannibal and St. Joseph*, which, having received a very valuable grant of land from the Government, and passing through a very rich country, has strength enough to go on to completion. When made, it will be a useful and valuable work.

## Railroads.

### YORK & CUMBERLAND RAILROAD, ME.

We have before us the last Annual Report of this Company, made to the stockholders in August, 1855. The road is finished from Portland to the Saco River, 18½ miles. The road, in its early days, was unfortunate. Its contractor abandoned the work in June, 1851, leaving every portion of the line in an unfinished state. Between the contractor and the company there is still an item of \$160,000 in litigation before the Supreme Court of the United States.

The total expenditure on the road to July, 1855, was \$772,494 12. The earnings for the year were..... \$37,096 30  
The expenditures for the same period were..... 27,180 60

Net earnings..... \$ 9,915 70

Proportion of expenses to earnings, 73 3/4 cent.

With regard to the large proportion of expenses to earnings, the Superintendent says:

"In December last, when I entered upon the duties of my office, I found the Road's equipments very much out of repair; but few spare wheels, and but one engine fit for service; deficiencies, which called for immediate and constant remedy.

"During the month, the bridge over 'Deering's Mill Pond,' by reason of inefficient and imperfect construction, broke down while the freight train was passing over it. The engine driver, Mr. Smith, and the fireman, Mr. Sanderson, were both injured, though not seriously.

"The repairs, consequent upon this accident, of bridge and engine, and the cost of replacement of wheels, have all been included in the account of running expenses.

"Another cause of unusual expenditure was the high price demanded for wood along the line of the road.

"The necessity of purchasing largely was imperative, as the whole stock on hand in December comprised only twelve cords and one foot.

"Being incidental and unavoidable, the circumstances just mentioned have alone occasioned a direct and positive increase of outlay, and were this report uninfluenced and unaffected by other considerations, the present condition and promise of the road would more readily appear, as they in reality are, largely improved and improving.

"By a system and disposition of accounts, differing somewhat from those of my predecessors, I have invariably included all expenditures contingent on the management and maintenance of the road, under the head of running expenses. Consequently, although these expenses seem, relatively, augmented, a cursory examination will show that the 'construction account' for the last seven months has received no enlargement.

"During the first five months of the closing financial year, the sum of \$1,848 69 was introduced into the 'construction account.' In the previous year \$6,638 63 were ranged under the same head. Similar sums, which have heretofore

annually increased the cost of the road, by their insertion in the construction account, I have deemed running expenses, and have paid them as such.

"This exhibit furnishes the sole and sufficient solution for the apparent increase of the current expenditures, and the consequent diminution of net receipts.

"I would now earnestly recommend that the bridge over 'Deering's Mill Pond,' and also that near Gorham, termed the 'Break-neck' bridge, be immediately and substantially rebuilt.

"The engine house at Saco River needs enlarging, and the turn-table will have to be taken up and repaired before another winter.

"Forty or fifty tons of iron rails are wanted to replace those that are badly lamellated throughout the line. Three or four hundred cross-ties are also needed.

"The road from Gorham to Saco river has never been properly ballasted, and consequently requires a large amount of expensive labor to keep it in order and repair.

"No damages to persons or property, attributable to the carelessness of any of the employees, have occurred during the year."

The earnings of the road are gradually increasing, but it is very evident that with its high cost and unfortunate circumstances, to be made at all profitable, it must be extended to a connection with other roads, and the sooner this is done the more profitable it will be to the company.

### MEMPHIS AND CHARLESTON RAILROAD— EXTENSION TO CHATTANOOGA.

We find in the *Chattanooga Advertiser* the following proceedings of a spirited meeting, of parties interested in the above extension:

"On Monday, November 19th, 1855, being Circuit Court day, the citizens of Marion county met in general convention at the Court House in Jasper, for the purpose of ascertaining from the citizens along the line of extension of the Memphis and Charleston Railroad, on the north side of Tennessee river, from Stevenson to Chattanooga, what material aid could be given to said extension. The meeting was called to order by the appointment of Geo. W. Rice as Chairman, and Col. John H. Conatser as Secretary. After the object of the meeting being explained by the Chairman, and the reading of resolutions adopted by the Board of Directors of said road, in Huntsville, on the 10th inst., in relation to said extension, Hon. Hopkins L. Turney, Hon. Josiah M. Anderson, Col. J. G. Spears and Col. J. H. Conatser severally addressed the meeting at length and in detail, of the great advantages to result from the completion of said road. Subscription lists were presented and a large amount subscribed, when the meeting adjourned, to meet again at early candle light.

#### NIGHT MEETING.

The convention was called to order, David Rankin acting as Chairman.

On motion of Geo. W. Rice, seconded and unanimously adopted, that David Chandoin, Dr. J. T. Alexander and H. S. Griffith be appointed a corresponding committee, and a committee of appointment, to make sub-com-



mittees and to select suitable speakers and persons as they may deem necessary to canvass the county of Marion, and obtain such subscription of stock and right of way as the citizens may feel inclined to make for the extension of said road, and that they report their acts and their subscription lists, and surrender of right of way, on or by the first day of January next, to the agent of said road. On motion of H. S. Griffith, seconded and unanimously adopted, that the Chairman appoint a similar committee of seven persons in Bledsoe county, with the like forms and duties as those of Marion county, when the Chair appointed Thos. N. Frazier, Esq., Col. J. G. Spears, Col. Daniel T. Cocke, Col. J. Robinson, Col. B. T. Bridgman, T. J. Wilson and Samuel M. Reynolds, Esq., when the meeting adjourned.

#### CHERAW AND COAL FIELD RAILROAD.

The citizens of Richmond and Moore counties, in North Carolina, held a convention at Rockingham, Richmond county, on Oct. 31, to consider the project of a railroad from Cheraw, on the Great Pedee river in Chesterfield, South Carolina, to the coal fields of Deep river, a tributary of Cape Fear river in North Carolina. The following is the action of the convention:

The committee, to whom was assigned the duty of resolutions expressive of the views of this convention, having had the same under consideration, ask leave to report:

1. *Resolved*, As the opinion of this meeting, that State policy (to which none of us are indifferent) requires that we should go in for the greatest good to the greatest number; and then provide for the wants of the remainder, by liberal appropriations, regardless whether they find a market within or without the State.

2. *Resolved*, We hold that the fostering hand of the State should be extended over the whole State; that from our geographical position, we have been measurably excluded from any improvements looking to the development of our productive industry; have been taxed for the benefit of other sections; and that it is nothing but right and proper, if need be, that they should be taxed for our benefit.

If this principle be correct, which no fair-minded man can deny, we cannot entertain a doubt that an application to the next Legislature for a charter for the continuation of the Northeastern road from the State line, near Cheraw, to the coal fields on Deep River, will be favorably received.

3. *Resolved*, That while we, unqualifiedly, are the advocates of the Wilmington, Charlotte and Rutherford road, we are at the same time the avowed advocates of granting a charter for the construction of a railroad from some point on the State line, near Cheraw, through Richmond and Moore, via Carthage, to the coal fields on Deep River, and we will vote for no man for the coming Legislature, who will refuse an act of incorporation for that purpose, particularly when the State is not called upon to contribute one cent to its construction.

4. *Resolved*, We are the advocates, at the same time, of building up our own seaport towns, and sustaining and improving the condition of the principal commercial towns of the State, when this can be done without too great a sacrifice; yet, at the same time, we are unqualifiedly opposed to any system that

shall constrain a citizen to trade at home, when it is evidently his interest to trade abroad.

#### CHERAW AND DARLINGTON RAILROAD S. C.

The Cheraw and Darlington Railroad, just completed, extends from Florence, on the Wilmington and Manchester Railroad, through Darlington and Chesterfield counties to Cheraw, on the Great Pedee river. It is designed to accommodate a region hitherto imperfectly supplied with a communication with the seaboard by the Great Pedee river. The road is forty miles in length, and the track-laying has just been completed. The road is now in running order. The following is the annual report of the President:

"At the last annual meeting of the stockholders of the Cheraw and Darlington Railroad Company, held at this place, the operation of laying rails on the track had not commenced. To-day, the President and Directors have the pleasure to report the completion of the road, in its whole extent, from its southern terminus at Florence, on the Wilmington and Manchester road, to the depot at its northern terminus at Cheraw.

The track-laying, up to the depot at Cheraw, was finished only two days ago—just in time to convey the stockholders to the third annual meeting—to enable the friends and patrons, and property holders in this great public enterprise, to see for themselves (as far as the construction of the road is concerned) that their objects and purposes have been fully and faithfully, and we hope satisfactorily carried out.

The opening and perfecting a railroad in the upper Pedee region of South Carolina, will be a memorable era in the history of the country. All experience shows that 'those inventions which abridge distance—every improvement in the means of locomotion—benefit mankind, socially and intellectually, as well as materially.'

Wherever a railroad has been constructed, new life and vigor has been imparted to all the industrial pursuits of the community, and its beneficial effects have been felt in every grade and condition of society.

The slow and uncertain transmission of agricultural products and merchandise by river conveyances, has always presented grievous impediments and embarrassments to the business operations of this section of our State. The Cheraw and Darlington Railroad, now completed, will at all seasons of the year furnish a certain and rapid means of communication with the seaport markets of Wilmington and Charleston.

|                                                                                                                                            |          |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------|
| The continuous railroad connection of Cheraw and Charleston, now perfected, is made by the Cheraw and Darlington Railroad to Florence..... |          |
| From Florence, by Wilmington and Manchester Railroad, to Kingsville.....                                                                   | 40 miles |
| From Kingsville to Charleston.....                                                                                                         | 64 "     |
| Cheraw to Charleston.....                                                                                                                  | 105 "    |
| The connection with Wilmington is made per Cheraw and Darlington R. R. to Florence....                                                     | 209 "    |
| From Florence, by Wilmington and Manchester Railroad, to Wilmington.....                                                                   | 40 miles |
| Cheraw to Wilmington.....                                                                                                                  | 107 "    |
|                                                                                                                                            | 147 "    |

A more direct, and consequently a cheap and more speedy transit, will be established between Cheraw and Charleston, on the completion of the Northeastern Railroad, which will connect with the Cheraw and Darlington road across the track of the Wilmington and

Manchester road at Florence. The distance from Cheraw to Charleston, by the Northeastern road, is 142 miles. By this route the distance of 67 miles will be saved.

Delay, reluctance and indifference on the part of factors and merchants of Charleston to render prompt, substantial and material aid for the speedy completion of the Northeastern Railroad, may cause a diversion of a large portion of the business of the upper Pedee region to other markets.

The Treasurer's report, herewith submitted, exhibits—

|                                                 |              |
|-------------------------------------------------|--------------|
| Receipts of the current year.....               | \$251,767 79 |
| Expenditures.....                               | 257,086 50   |
| Gross receipts from all sources to 31st ult.... | 462,854 00   |
| Expenditures.....                               | 458,173 00   |
| Leaving a balance of cash on hand.....          | 4,684 29     |

The Engineer reports that \$60,000 will be required to complete and equip the road.

|                                                                                                           |          |
|-----------------------------------------------------------------------------------------------------------|----------|
| To meet this demand, there is in hand State subscription in S. Carolina and Charlotte Railroad Stock..... |          |
| Company's Bonds.....                                                                                      | \$37,500 |
| Cash in hand.....                                                                                         | 8,000    |
| Individual subscription unpaid, about.....                                                                | 4,861    |
|                                                                                                           | \$57,261 |

In addition to the above, the subscription payable in transportation of the Northeastern Railroad Company, is \$19,250.

Justice authorizes me to say that Mr. Solomons, the Chief Engineer, by whose plans and superintendence the road has been constructed, has discharged his duty with great diligence and ability. Respectfully submitted.

THOS. SMITH, Pres't

**HANNIBAL AND ST. JOSEPH RAILROAD.**—The Hannibal *Messenger* learns that two of the Locomotive Engines, designed for the construction trains on this road, have reached Alton, and in a few days may be expected at Hannibal.

The track-layers are ready to commence laying the ties and iron, and as soon as the bridge over the valley of South River is completed, (which it is hoped will be by the first of January next) there will be no obstruction to the cars running to Palmyra.

The *Messenger* hopes to see fifty miles of the road opened for business by next summer.

**MISSISSIPPI CENTRAL RAILROAD.**—The Holly Springs, Mississippi, *Times*, of the 22d inst., brings the following cheering intelligence in reference to this Road:

"The track has been completed to the temporary depot, about a mile and a quarter from the public square, and the passenger train came through to that point on yesterday, the 21st instant. The first train of cotton, three hundred and sixty bales, went off to-day. Quite a large amount has already accumulated there for shipment, and hundreds of bales are daily coming in. Freight is regularly coming through, and a warehouse is nearly completed for its reception. Altogether things exhibit quite a bustling and business appearance out there, in the daily arrival and departure of cars and wagons. The company, we understand, are expecting twenty freight cars, platform and box style, which were shipped by flatboat from Cincinnati, last month."—*Memphis Eagle*.

The Dixon Air Line Road was completed to within a mile of Fulton city on last Saturday. We understand that the people of Fulton design celebrating the advent of the first locomotive at that point, with appropriate ceremonies.—*Dav. Gaz.*, Nov. 29.



## TREASURER'S REPORT,

To the Stockholders of the Kennebec and Portland Railroad:

GENTLEMEN: I would respectfully present the following report of the present condition of your road.

The expenditures to September 29, 1855, are as follows:

|                                                           |                |
|-----------------------------------------------------------|----------------|
| Construction account.....                                 | \$2,089,345 50 |
| Land damages.....                                         | 182,407 13     |
| Engine account.....                                       | 97,108 54      |
| Car account.....                                          | 100,731 88     |
| Am't to be paid to redeem the Yarmouth Road.....          | 202,400 00     |
| Balance stock, interest due to original stockholders..... | 34,819 48      |
| Balance interest due to preferred stockholders.....       | 2,298 77       |
| Renewal account.....                                      | 40,726 07      |
| Sundry accounts.....                                      | 3,041 31       |

Total.....\$2,753,877 63

The sources from which the above expenditures have been derived, are as follows:

|                                                                                   |              |
|-----------------------------------------------------------------------------------|--------------|
| City and town loans.....                                                          | \$800,000 00 |
| Bonds payable.....                                                                | 14,000 00    |
| 1st October bonds.....                                                            | 230,000 00   |
| 2d October bonds.....                                                             | 250,000 00   |
| Preferred stock.....                                                              | \$246,200 00 |
| Add part payment on same.....                                                     | 1,039 10     |
| Add balance interest due.....                                                     | 2,298 77     |
|                                                                                   | 249,527 87   |
| Am't received of P. S. & P. R. R. Co. upon which six per cent. is guaranteed..... | 100,000 00   |
| Original stock assessments.....                                                   | 770,379 10   |
| Add stock interest due.....                                                       | 31,819 48    |
|                                                                                   | \$805,198 58 |
| Less amount canceled for new preferred stock.....                                 | 60,000 00    |
|                                                                                   | 745,198 58   |
| Preferred stock of 1854.....                                                      | 120,000 00   |
| Am't due to Reuel Williams for cash advanced.....                                 | 61,411 21    |
| Yarmouth road.....                                                                | 202,400 00   |
| Sundry accounts.....                                                              | 47,129 20    |
|                                                                                   | 2,978,363 17 |
|                                                                                   | \$224,385 49 |

Leaving a balance of assets as follows, viz:

|                                                  |              |
|--------------------------------------------------|--------------|
| Amount charged Commission-ers' sinking fund..... | \$52 850 00  |
| Bonds pledged and on hand.....                   | 108,000 00   |
| Bills receivable.....                            | 4,410 46     |
| Due from station agents.....                     | 11,366 64    |
| Due from sundry persons.....                     | 4,033 93     |
| Due from post office department.....             | 1,984 35     |
| Due from S. & K. R. R.....                       | 6,959 80     |
| Fuel on hand.....                                | 17,676 75    |
| Stock in machine shop.....                       | 7,344 27     |
| Due from Y. & C. R. R.....                       | 3,693 80     |
| Cash in Shawmut Bank.....                        | 110 36       |
| Cash in treasury.....                            | 6,055 63     |
|                                                  | \$224,485 49 |

The receipts for the past year, ending September 29, exclusive of amounts due to other roads for their proportion of travel and freight, have been as follows:

|                                                            |              |
|------------------------------------------------------------|--------------|
| From 239,389 passengers.....                               | \$167,619 04 |
| From 31,077 83-100 tons freight.....                       | 49,042 20    |
| From transportation of mails, rents, express, &c., &c..... | 12,086 15    |
|                                                            | \$328,747 39 |

Less running expenses, as follows:

|                                        |             |
|----------------------------------------|-------------|
| Maintenance of way.....                | \$10,893 30 |
| Locomotive power.....                  | 20,527 24   |
| Train expenses.....                    | 22,725 25   |
| Office establishment and salaries..... | 12,804 88   |
| Station expenses.....                  | 12,025 68   |
| Mail expenses.....                     | 603 57      |
| Fuel expenses.....                     | 28,768 21   |
| General expenses.....                  | 416 26      |
| Am't of rent of S. & K. R. R.....      | 5,339 96    |
|                                        | 114,104 95  |

Leaving net receipts for the year.....\$114,642 44

It will be seen that the amount of running expenses, \$114,104 95, includes the rent paid to S. & K. R. R. \$5,339 96; and the repairs of the J. D. Lang, of about \$3,000, are included in the amount of locomotive power.

I annex sundry tables, showing the comparative receipts of your road for the past six years, the amount of receipts upon the K. & P. R. R. proper, the last report of the Commissioners of the Sinking Fund, &c., &c.

A. H. GILMAN,  
Treasurer K. & P. R. R. Co.

## TREASURER'S OFFICE,

Augusta, Oct. 22, 1855.

The receipts on the road in 1854-5 were \$228,747 39, against \$208,568 42 in 1853-4; and \$168,113 88 in 1852-3; increase for 1855 over 1854, \$20,178 97, and over 1853 \$60,633 51.

## GREAT WESTERN RAILWAY.

AUDIT OFFICE, Dec. 1, 1855.

Corresponding statement of Traffic for the month ending 30th Nov., 1854 and 1855:

| PARTICULARS.           | AMOUNT.      |
|------------------------|--------------|
| Current month.         |              |
| Passengers, Local..... | \$55,944 29  |
| " Foreign.....         | 85,878 99    |
| " Emigrants.....       | 9,127 28     |
| Sundries.....          | 6,847 15     |
| Live Stock.....        | 27,526 05    |
| Freight.....           | 73,994 20    |
| Total, 1855.....       | \$259,317 00 |
| Corresponding month.   |              |
| Passengers, Local..... | \$45,982 83  |
| " Foreign.....         | 54,613 05    |
| " Emigrants.....       | 9,172 37     |
| Sundries.....          | 6,544 91     |
| Live Stock.....        | 2,557 09     |
| Freight.....           | 35,839 40    |
| Total, 1854.....       | \$155,009 00 |
| Increase.....          | \$104,308 00 |

GEO. DARTNELL.

## CINCINNATI, HAMILTON &amp; DAYTON R. R.

This Company have just declared a dividend of 5 per cent., payable in stock. The following is the official notice to the stockholders, issued December 1, 1855:

To THE STOCKHOLDERS: The Board of Directors, at their meeting on the 2d Tuesday of October last, postponed their question of Dividend, with the expectation of being able to make one in Cash at the present time. The failure, however, to dispose of a sufficient number of the second mortgage Bonds of the Company, at satisfactory prices, to replace the Dividend Fund used for building second track, prevents their now making a cash dividend. The entire amount of the bonded debt, compared with the value of the road, is so small that the Directors, knowing the value of these bonds, cannot consent to have them sold at too great a sacrifice.

The property held in connecting roads, and in two steamboats on Lake Erie, is at present very much reduced in value, and will doubtless continue so for some time. Under these circumstances, the Directors have considered it judicious to charge up a portion of the accumulated net earnings of the road, to cover in part the depreciation on this description of property.

The Company have of undivided net earnings to Oct. 1, 1855....\$233,095 45  
From these earnings a dividend of 5 per cent payable in Stock, has this day been declared.....\$105,000 00  
Carried to depreciation on value of steamboats.....33,116 79  
Carried to depreciation on value of bonds and stock in connecting roads.....52,097 10  
Leaving as undivided earnings for future use.....42,881 56

\$233,095 45

The authorized capital stock of the company is \$2,500,000. There has been issued but \$2,100,000, of which the Company own \$32,000. The dividend this day declared (the first one payable in stock), paying the fractions in cash, at the rate of eighty cents on the dollar, at the option of the stockholders, will increase the present issue of stock about \$60,000—still leaving of stock, authorized to be issued, \$340,000.

The Directors entertain the hope that it may never be found necessary again to make a dividend, payable in stock—that from the

sale of bonds they will be able to discharge the floating debt, which has been much reduced in the past six months—and from the net earnings they think there is a reasonable prospect of their being able hereafter to make only cash dividends.

The dividend is payable to stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York, on and after the 15th inst.

On behalf of the Board—

S. S. L'HOMMEDIEU, Pres't.

## EXPLOSION OF A STEAM FIRE ENGINE.

The first and only accident of this character which has occurred since the introduction of these now indispensable machines took place in this city on the afternoon of December 5th. The facts of the explosion as published in the *Enquirer* of last Thursday are as follows:

A committee from Chicago were deputed to examine the *modus operandi* of our steam fire engine, and two o'clock yesterday afternoon was the time appointed for the trial.—Between that hour and three o'clock the A. B. Latta was brought opposite the Mechanics' Institute, in presence of the committee, and commenced getting up steam; from some cause or other, instead of eight minutes, the usual time occupied in this process, it was over twelve minutes before she was ready to play, when she performed to the entire satisfaction of the Chicago gentlemen. In the meantime the Joe Ross arrived upon the ground, and after the Latta had finished, her crew proceeded to exhibit her powers to the committee. In seven minutes and a quarter she commenced throwing two streams, when the engineer was requested to hold up, in order that a connection might be formed, so that the water could be propelled through one nozzle. This he did, and a minute afterward the hose burst, when the steam was again shut off, and almost instantaneously the explosion took place, in consequence of there being no water in the boiler. The engineer, John Winterbottom, was blown into the air a considerable height, and fell some fifty yards from the engine. His legs were blown from the body, the entrails of which were torn out, and when picked up, nothing but the trunk and head remained. It was a sickening sight, and will not be readily forgotten by those who witnessed it. He was thirty-six years of age, an Englishman by birth, and leaves a wife and child.

Alexander B. Latta and Benjamin Gilman were severely, although not dangerously scalded, and Horace English was badly hurt by being struck in the side by a portion of the boiler. The accident happened at about half-past four o'clock.

On the inquest which was held, it was testified that at the time of the explosion, the engineer had steam of 180 lbs. pressure, and that he was cautioned that he had not enough water in the part of the boiler which surrounds the fire chamber. At the explosion no water seems to have been discharged from the fire box. The coil of pipe, which constitutes the peculiarity in the construction of these engines, was entirely uninjured.

The appearance of the torn boiler would indicate a higher temperature than could have



existed in the iron, if it had been in contact with water. Here is the great trouble and till engineers are properly informed of the absolute necessity of sufficient water, and the danger attending low water, we shall hear of boiler explosions.

**FORT WAYNE AND CHICAGO RAILROAD.**—The annual meeting of the stockholders of this company was held on the 15th, about two-thirds of the stock being represented.—The following gentlemen comprise the new Board:

Wm. B. Ogden, John Evans, Chicago, Ill., Samuel G. Haas, Valparaiso, Porter county, Ia., Amazi L. Wheeler, Plymouth, Marshal county, Ia., Wm. Williams, Warsaw, Kosciusko county, Ia., Solomon R. Roberts, Pittsburg, Pa., Samuel Hann, Pliny Hoagland, Joseph K. Elgerton, Fort Wayne, Ia.

The Fort Wayne Times states that arrangements are made to open the road a distance of twenty miles to Columbia—by the 1st of January. The road bed is ready for the iron to that point, and Messrs. Baily & Co., contractors, are progressing rapidly with the laying down of the iron. The grading between Columbia and Warsaw is far advanced, and the iron for the track mostly at Fort Wayne, and the Board hope to open the road to Warsaw early in the spring. The portion of the road between Fort Wayne and Plymouth constitutes the eastern division of 64 miles. At present, work will be concentrated on this division, which, when completed, will make a connection with Chicago by way of the Peru and Laporte, and Northern Indiana and Southern Michigan Roads. The Peru and Laporte road is now near completion between Plymouth and Laporte a distance of 28 miles.—*Com. Rep. Nov. 30.*

## Miscellaneous and Mechanical.

### GROOVING AND POLISHING OF HARD ROCKS AND MINERALS BY DRY SAND.

BY WILLIAM P. BLAKE.

The phenomena about to be described were observed in the Pass of San Bernardino, (California) in 1838.\* This Pass is one of the principal breaks through the southern prolongation of the Sierra Nevada, and connects the Pacific slope with the broad and low interior plain of the Colorado Desert. It is bounded on each side by high mountains; the peak of San Bernardino rising on the north to the height of about 8,500 feet, and San Geronio, on the south, to about 7,000. The elevation of the summit level is 2,808 feet above the Pacific, and the width of the gap at that point is about two miles: from this the ground slopes each way very gradually, the grade or descent on the east, for about 23 miles, being, on an average, 69 feet per mile.

On this eastern declivity of the Pass—the side turned toward the Desert—the granite and associate rocks which form the sharp peak of San Geronio extend down to the valley of the Pass in a succession of sharp ridges, which being devoid of soil and of vegetation, stand out in bold and rugged outlines against the clear unclouded sky of that desert region.

\* A brief notice of these phenomena is given in the writer's Preliminary Geological Report, accompanying the Report of Lieut. R. S. Williamson, of a Reconnaissance in California, House Doc., 129, p. 27. Washington, 1855.

It was on these projecting spurs of San Geronio that the phenomena of grooving were seen. The whole surface of the granite, over broad spaces, was cut into long and perfectly parallel grooves and little furrows, and every portion of it was beautifully smoothed, and though very uneven, had a fine polish. For a moment it was impossible to realize the cause of all this abrasion performed in a manner so peculiar; the action of glaciers and drift was thought of in succession; but the appearance of the surface was so entirely different from that of rocks which have been acted on by these agents, that I could not regard them as the cause. While contemplating these curious effects, the solution of the problem was presented. The wind was blowing very hard, and carried its numerous little grains of sand. When I stooped down and glanced over the surface of the rocks, I saw that they were enveloped in an atmosphere of moving sand, which was passing over and accumulating in deep banks and drifts on the lee side of the point. Grains of sand were thus pouring over the rocks in countless myriads, under the influence of the powerful current of air which seems to sweep constantly through this Pass from the ocean to the interior.

Wherever I turned my eyes—on the horizontal tables of rock, or on the vertical faces turned to the wind—the effects of the sand were visible: there was not a point untouched, the grains had engraved their track on every stone. Even quartz was cut away and polished; garnets and tourmaline were also cut, and left with polished surfaces. Masses of limestone looked as if they had been partly dissolved, and resembled specimens of rock-salt that have been allowed to deliquesce in moist air. These minerals were unequally abraded, and in the order of their hardness; the wear upon the feldspar of the granite being the most rapid, and the garnets being affected least. Whenever a garnet or a lump of quartz was imbedded in compact feldspar and favorably presented to the action of the sand, the feldspar was cut away around the hard mineral, which was thus left standing in relief above the general surface. A portion, however, of the feldspar, on the lee side of the garnets, being protected from the action of the sand by the superior hardness of the gem, also stood out in relief, forming an elevated string, osar-like, under their lee.

When the surface acted on was vertical and charged with garnets, a very peculiar result was produced; the garnets were left standing in relief, mounted on the end of a long pedicle of feldspar, which had been protected from action while the surrounding parts were cut away. These little needles of feldspar tipped with garnets, stood out from the body of the rock in horizontal lines—pointing like jeweled fingers in the direction of the prevailing wind.

They form in reality a perfect index of the winds' direction, recording it with as much accuracy as the oak trees do, in the region about San Francisco, where they are all bent from the perpendicular in one direction, or in some places lie trailed along the ground. All these little fingers of stone pointed westward, in the direction of the valley of the Pass, to which the wind conforms. We experienced this wind before reaching the point of rocks and the sand drifts: it blew with great force and seemed to be a great air current, as uniform in its direction and action as the great currents of the sea. It flows into the interior with singular persistence and velocity, sweeping down over the slope of the Pass, not in fitful gusts and eddying whirls, but with a constant uniformity of motion unlike any of the winds of our Atlantic seaboard, or of the plains.

The Pass would in fact appear to be a great draught-channel, or chimney, to the interior, through which the air rushes inland from the cool sea, to supply the vacuum caused by the

ascent of a column of heated air from the parched surface of the great Desert. This Pass is the only break of any magnitude in the mountain chain for a long distance, and as an air-channel, holds the same relation to the Colorado Desert as is sustained by the Golden Gate, at San Francisco, to the broad interior valleys of the Sacramento and San Joaquin.

The effects of driving sand are not confined to the Pass; they may be seen on all parts of the Desert where there are any hard rocks or minerals to be acted upon. On the upper plain, north of the Sand Hills, where steady and high winds prevail, and the surface is paved with pebbles of various colors, the latter are all polished to such a degree that they glisten in the sun's rays, and seem to be formed by art. The polish is not like that produced by the lapidary, but looks more like lacquered ware, or as if the pebbles had been oiled and varnished.

On the lower parts of the Desert, or wherever there is a specimen of silicified wood, the sand has registered its action. It seems to have been ceaselessly at work, and when no obstacle was encountered on which wear and abrasion could be effected, the grains have acted on each other, and by constantly coming in contact have worn away all their little asperities and become almost perfect spheres. This form is evident when the sand is examined by a microscope.

We may regard these results as most interesting examples of the denuding power of loose materials transported by currents in a fluid. If we can have a distinct abrasion and linear grooving of the hardest rocks and minerals, by the mere action of little grains of sand, falling in constant succession and bounding along on their surface, what may we not expect from the action of pebbles and boulders of great size and weight, transported by a constant current in the more dense fluid-water? We may conclude that long rectilinear furrows of indefinite depth may be made by loose materials, and that it is not essential to their formation that the rocks and gravel, acting as chisels or graters, should be pressed down by violence, or imbedded in ice, or moved forward *en masse* under pressure by the action of glaciers or stranded icebergs. Wherever, therefore, we find on the surfaces of mountains, not covered by glaciers, grooved and polished surfaces with the furrows extending in long parallel lines, seeming to indicate the action of a former glacier, we should remember the effects which may be produced during a long period of time by light and loose materials transported in a current of air; and which consequently may be produced with greater distinctness, and in a different style, by rocks moved forward in a current of water. The effects produced by glaciers, by drift, or moving sand, are doubtless different and peculiar—so different and characteristic, that the cause may be at once assigned by the experienced observer, who can distinguish between them without difficulty. It is, however, possible that after a sand-worn surface, such as has been described, has been for ages covered with moist earth, a decomposition of the surface would take place sufficient to remove the polish from the furrows and leave us in doubt as to their origin.

If it were possible, it would be exceedingly interesting to ascertain the length of time it has required for the little grains of sand to carve the surface of the granite ridge to its present form. How inappreciably small must be the effect produced by a single grain! And yet by their combined and long continued action mighty effects are produced. That the action of the grains singly, is not visible, is proved to us by the polished surface, for no one grain cuts deeply enough to leave a scratch. Ages have doubtless elapsed since this action of the sand began, and we cannot tell how deep the abrasion has extended; cubic yards of granite may have been cut into dust and driven before the wind over the expanse of the Desert.











**RAILROAD DISASTERS.**—Disasters on Railroads have of late been very frequent. Within the last three months, there have been eight, by which sixty persons have lost their lives, and one hundred and forty-four have been wounded, as follows:

|                                     | Killed. | Wounded. |
|-------------------------------------|---------|----------|
| Aug. 29th, Camden & Amboy R. R..... | 22      | 70       |
| Sept. 3d, Stonington R. R.....      | 2       | 8        |
| Sept. 8th, Camden & Amboy R. R..... | 1       | 1        |
| Sept. 11th, Mad River R. R.....     | 1       | 6        |
| Sept. 20th, N. Y. Central R. R..... | 1       | 3        |
| Oct. 8th, Boston & Maine R. R.....  | 3       | 6        |
| Oct. 15th, Harlem R. R.....         | 2       | 0        |
| Nov. 1st, Pacific R. R.....         | 28      | 50       |
| Total.....                          | 60      | 144      |

Referring back for a period of about two years and a half, the list is further extended by the addition of seven accidents, (excluding those of a less destructive character,) by which 208 lives were lost, and 395 persons wounded; making an aggregate of 268 killed, 539 wounded.

#### MOBILE AND OHIO RAILROAD.

This work steadily and surely progresses, and last week completed another step of its journey to the Ohio. The *Mobile Advertiser* is instructed to "inform the public interested, that on and after Monday, 29th inst., the cars—freight and passenger trains—will run regularly to the Marion Station, ten miles to the north-westward of the Okitubbee Station, the late temporary resting place of the iron horse. The Marion Station is one hundred and forty miles from the city, and as the track laying is going forward rapidly, it is hoped and expected that on the first day of December, the trains will be running to Lauderdale Springs, fourteen miles beyond Marion, and one hundred and fifty-four from Mobile."

The last Jackson, Tennessee *Whig* says: "We are gratified to learn that a bill has just past the Legislature, giving important aid to the bridges on the Mobile and Ohio Railroad, north of this place, and also to the bridge on the Central Mississippi and Tennessee R. R., across the Forkeddeer, south of this. These roads, which unite at this place, are progressing with great rapidity, and the people of this county, who have pushed these improvements forward with such zeal, may now look forward to an early fulfillment of their highest expectations."

#### SODA WATER APPARATUS!

THE ONLY PATENT CAST IRON

#### SODA WATER APPARATUS

IN THE UNITED STATES,

(Patented June 12, 1855.)

#### FOR MANUFACTURING SODA WATER!

Also, every description of Apparatus, either for Drawing or Bottling of Soda Water. Also, the new SELF-TIGHTENING FAUCET, for water or any kind of Liquids, (Patent applied for 1855,) can be made of Brass, Lead, or any other metal, and Silver-Plated. It cannot be left open by carelessness or by children, nor be easily broken. It will out-wear any other Faucet now in use.

Also the new LUBRICATING APPARATUS, (Patent applied for 1855,) for oiling Valves and Cylinders and Throttle Valves of Steam Engines, Locomotives, Steam Pumps, &c. This Apparatus is Transparent, Self-Feeding, and not easily got out of order. It has a Glass Cylinder on the inside of a brass case, which holds the oil, and can be seen at any time when the oil is out. It will do either for Steam Vacuum or Journals. It is the best thing that could be made for Locomotives.

STEAM GAUGES on a new principle, manufactured and sold by

WILLIAM GEE,

Dec. 5, 1855.—1y

68, Fulton Street, New York.

#### Cincinnati, Hamilton, & Dayton R. R.

SECRETARY'S OFFICE, CINCINNATI, }  
December 1st, 1855.

At a Meeting of the Board of Directors of this Company, held this day, a dividend of 5 per cent. on Stock, was declared out of the net earnings of the road to October 1st, 1855, payable to the Stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York on and after the 15th inst., fractional parts to be paid in cash, at the rate of eighty cents on the dollar, at the option of the Stockholders.

The Transfer Books will be closed for ten days from this date.

Dec. 6-1m

FRANK S. BOND, Secretary.

D. D. MILLER,  
Manufacturer of

LOCOMOTIVE, RAILROAD AND HAND  
LANTERNS.  
190 Water Street New York.

#### To Railroad Contractors.

SEALED proposals will be received at the office of the Edgfield and Kentucky Railroad Co., in Nashville, Tenn., until Saturday, Dec. 15th, 1855, for the construction of their Road, from Nashville to the Kentucky Line where it meets the Henderson & Nashville Railroad to Henderson on the Ohio River. The E. & K. Railroad is about forty-eight miles long, through a country well adapted to railroad construction, and the work will be divided into sections of about one mile each, which may be bid for separately or the whole road included in one proposition. Proposals may also be made to build the thirty miles only next to Nashville, either by single section or in one contract.

There are on the road, one tunnel half a mile long, heavy rock work at various points, and two large bridges. Maps, profiles and plans will be ready for examination by Dec. 1st, and any information may be obtained by addressing the undersigned.

SAM'L WATSON, President.

A. ANDERSON, Chief Engineer.

Nashville, Tenn., Oct. 20, 1855.

Nov. 1.

#### Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street.  
New York, Aug. 16th, 1855.

#### New Railroad Map.

RAILROAD Map of the United States, to be published. Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

Plain Lithograph.....\$0.50  
Colored Boundaries.....0.75

Backed with muslin and varnished ready for moulding.....1.50

Mounted.....2.00

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers. Railroad Companies wishing a large number to circulate with reports, or to supply their various offices, will be allowed a corresponding discount.

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167 Walnut St.,

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#### THE SCHENCK

#### MACHINERY DEPOT

AND

#### Leather Banding Manufactory,

No. 163 GREENWICH STREET,  
NEW-YORK,

KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

#### Oak-tanned Leather Belting,

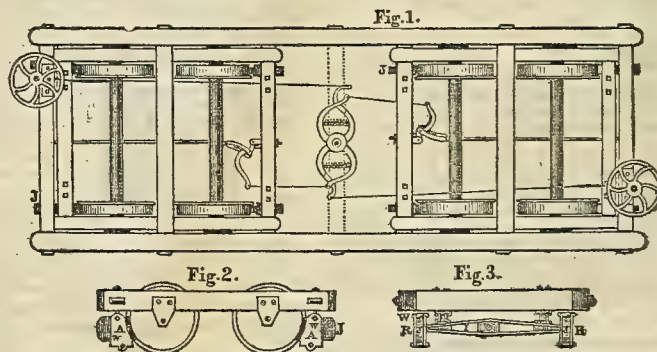
Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR

Aug. 9 ly

#### L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (w) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the tubers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

J. P. DERY, Agent, Cavendish, Vt.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,  
**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,**  
**Railroad Depots and Station Houses,**

at current rates. **L. A. OSTROM,**  
ag. 16. No. 6 West Third Street, Cincinnati.

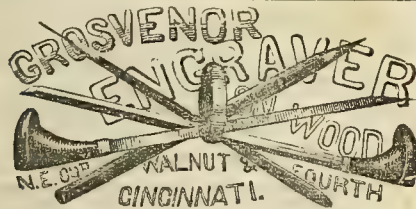
**RAILROAD IRON.**

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via. Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY.** Quebec & Kingston, Canada. **BERRY & WALKER.** Liverpool, England. Kingston, C. W., Sept. 15, 1855.



**T. N. RAFFINGTON,**  
**GENERAL ENGRAVER,**

North East Corner Fourth and Walnut Streets, over Ohio Savings Bank,  
**CINCINNATI.**

**BANK NOTE ENGRAVING.**  
**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

**Bank Notes, Drafts, Bills of Exchange,**  
**RAILROAD BONDS, & CERTIFICATES**  
Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE**  
**ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**  
**BILLS OF EXCHANGE, CHECKS,**  
Drafts, Certificates of Stock and Deposit, Promissory Notes, Bill and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
**GEORGE T. JONES,**  
South-East corner of Main and Fourth Sts., Cin.

**MIDDLETON, WALLACE & CO.,**  
**LITHOGRAPHERS & ENGRAVERS,**

No 115 Walnut St., Cincinnati.

**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
Beautifully executed and at moderate rates.

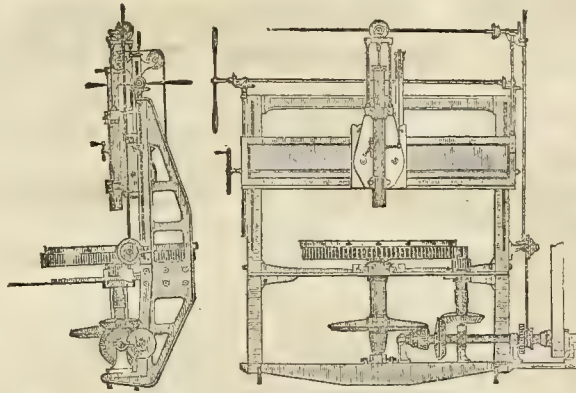
**Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.**

Engraved in all styles and on short notice.

**NILES' WORKS.**

**FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well known class of

**ENGINEERS' & MACHINISTS' TOOLS,**

**SHAFTING, GEARING,**

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**  
**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**London Agency for Sale of Bonds &c.**

Messrs LANCE & Co., are making more generally known in England, the great advantages of American securities for investment.

During the present year Messrs LANCE and Co. have disposed of a large amount of American and Canadian Railway Bonds, and are fast extending their connections. They will be happy to correspond with parties having good American Securities for sale.

Messrs LANCE & Co. have had experience in the purchase and shipment of Iron, and offer their cooperation to those about to negotiate for the disposal of Bonds and the purchase of Rails.

P. S. Presidents of Railway Companies are requested to favor Messrs L. & Co. with Exhibits or Reports of their Companies as published.

10, Regent street, Waterloo Place, London,  
October, 1855. nov. 15-6m.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines, 23 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address,

**THATCHER PERKINS,**

**President.**

Also, for sale, two Twenty Horse Power Stationary Engines. Aug. 9 4t

**Railroad Printing.**

**WE** have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

**T. WRIGHTSON & CO.,**

Railroad Record Office, 167 Walnut St. Cin.



## PERU &amp; INDIANAPOLIS R. R.

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Fr'ght. Ag't.  
Indianapolis, October 1, 1855.

## THE KENTUCKY MILITARY INSTITUTE.

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,  
President of the Board.

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between Columbus and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

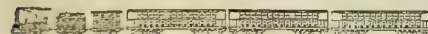
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-1f.

## Terre Haute &amp; Richmond R. R.



## Summer Arrangement.

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 24 hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855 S. HVESTIS Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

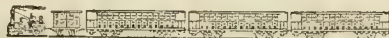
FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS IN OHIO.

Time as short to the Eastern Cities, as well as to Chicago and St. Louis, and Fare as Low as by any other Routes.



## Great Miami, [C. H. &amp; D.]

MAD RIVER AND LAKE ERIE,

## CLEVELAND &amp; TOLEDO,

AND

## EATON &amp; RICHMOND RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

## FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo and Chicago. (This train starts by Columbus time, which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

## SECOND TRAIN.

Indianapolis Express, at 6 A. M., for Indianapolis, and all points North and West.  
(This train also starts by Columbus time.)

## THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest for Pittsburgh, Philadelphia, Baltimore, &c., at Sandusky, with steamer Bay City for Detroit; with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua.

## FOURTH TRAIN.

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

## FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

## SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

## SEVENTH TRAIN.

Hamilton Accommodation at 5.30 P. M.

RETURNING.—Trains leave Dayton as follows: at 4.50 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M.

LEAVE HAMILTON at 5.54, 6.45 and 9.00 A. M., and 12.30, 4.49 and 8.50 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Sup't. C. H. & D. R. R.  
E. P. OSBORN Sup't. M. R. & L. E. R. R.  
E. B. PHILLIPS, Sup't. C. & T. R. R.  
D. M. MORROW, Sup't. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## IRON BOILER FLUES.

## PASCAL IRON WORKS.

## MORRIS, TASKER &amp; MORRIS,

Manufacturers of

## LAP-WELDED BOILER FLUES,

1½ to 7 inches outside diameter, cut to definite lengths, as required.

## WROUGHT IRON WELDED TUBES,

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,

PHILADELPHIA.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,  
BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in..... 15 HOURS.  
TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LA FAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50  
" Lafayette.....5 50  
" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

W. M. H. SMITH, Conductor.  
feb. 8-ly WmROpeSute M MerODn Lpn

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.  
Madison, Indiana. May 11.

## GEO. D. WINCHELL &amp; BRO.,

172 Elm Street, between 4th & 5th,  
CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action  
SUCTION & FORCE PUMP

AND

Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; we have adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-1y



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILA-**  
**DELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 8† Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 10 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4, East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.  
Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 8 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

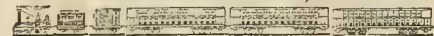
W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

## STEREOTYPE FOUNDRY, AND AGENCY OF L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of **STEREOTYPING**, including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

**AT THE FOUNDRY PRICES.**  
C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

1855. New Arrangement, 1855

**COMMENCING MONDAY, JULY 16.**

## LITTLE MIAMI RAILROAD, VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

*The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.*

LAID WITH HEAVY TIRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy Tiron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route. CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¾ hours. |
| To Cleveland in.....    | 8 " "     |
| To Dunkirk in.....      | 14½ " "   |
| To Buffalo in.....      | 16 " "    |
| To Albany in.....       | 25 " "    |
| To New York in.....     | 30¾ " "   |
| To Boston in.....       | 35 " "    |
| To Crestline in.....    | 6 " "     |
| To Pittsburgh in.....   | 14 " "    |
| To Philadelphia in..... | 30 " "    |
| To Wheeling in.....     | 10 " "    |
| To Baltimore in.....    | 26½ " "   |
| To Washington in.....   | 29 " "    |
| To Steubenville in..... | 12 " "    |

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

**FIVE DAILY TRAINS.**

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**Covington and Lexington Railroad.**

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terrehaute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7.25, A. M., stopping at all regular stations, and arriving at LEXINGTON at 12.15, P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45, P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryantsville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.20 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

FREIGHT TRAINS will leave the Depots in Covington and Lexington, daily, at 6.40, A. M.

**RATES OF FARE.**

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthiana.....  | 2 00   |

**FOR THROUGH TICKETS**

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent,

The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw. Madison and Scott, Covington.

CLAYTON & GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road. nov. 15\*

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

VIA LAWRENCEBURG,

IN connection with the **Ohio and Mississippi Railroad.** Passenger Trains leave Cincinnati a

4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo, St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.

Office, foot of Main Street, corner of Water Street.

SIDNEY RICE, Agent.

Cincinnati, Nov. 1, 1855.

**W. G. ATKINSON,**  
Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

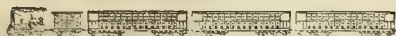
RAILROAD routes located, planned, and estimated  
Maps and Reports furnished; Researches made for  
Coal, Iron, Copper, Lead, or other Minerals,  
Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared. mar-17



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNYS &amp; PECK,

Louisville, Ky.

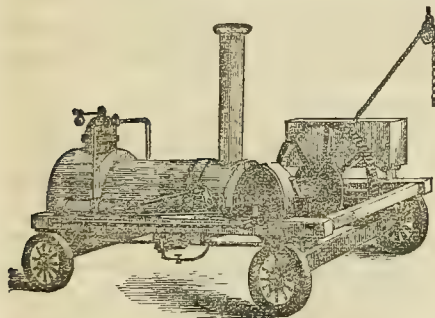
**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

Jy. 27. RICHARD NORRIS &amp; SON.

**A. L. ARCHAMBAULT'S****PORTABLE STEAM****HOISTING & PUMPING****ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

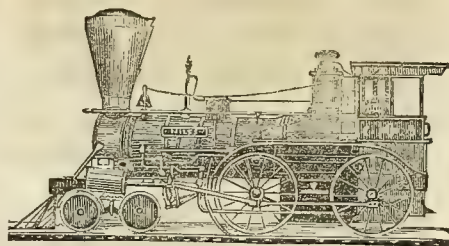
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MRS. DURAND, FULTON and TILTON.

J. M. BROWN.

Manufactured by  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in

**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

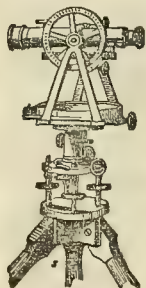
The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846-6\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.****T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING, CINCINNATI, O.,

MANUFACTURERS OF  
**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames'

Tire and Crank Axles, Chairs and Spikes. Locomotive

Head Lights, (of several makers) Car,

Conductor's Signal, Switch, Stoker and other

Lanterns. Drawbridge and cross Road

signal Lights; Gum Packing and

Hose, assorted Car Trimmings,

Enamelled head and seat

Linings, Plated and

White Metal Letters.

—ALSO—

Machinists' Tools,

particularly adapted to

Railroad Work, Mill Work,

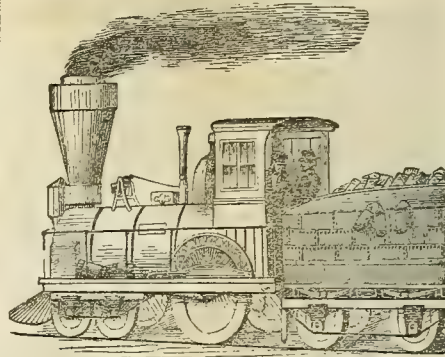
Shafting and Shop outfits, Punch-

ing and Shearing Machines, for Boiler

Work; Planers, Lathes, Drills, Portable

Forges, etc., etc. Oak-Tanned Belting, of superior

quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. &amp; E. Wason, Springfield, Massachusetts.

**Railroad Car Findings****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

Wheels &amp; Axles, Jaws, Boxes, and Casting Fit

**Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS****Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

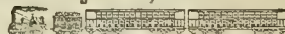
Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russia, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,  
Late Davenport & Bridges, Car Manufacturers,  
Cambridgeport, Mass.

ALFRED BRIDGES,  
Late Davenport, Bridges & Co., Fitchburg, Mass.  
to 66

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

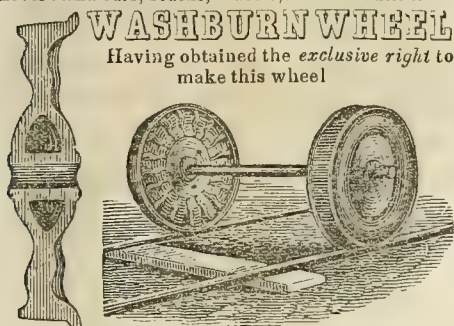
Dayton, Jan. 24th. 1853.

Jan. 25-†



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

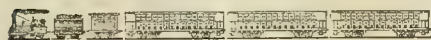


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.  
ap.12

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**  
And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

**Railway Car Manufacturers,  
MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16th\* **JOSEPH DAVENPORT.**

### S. C. THOMSON & CO.,

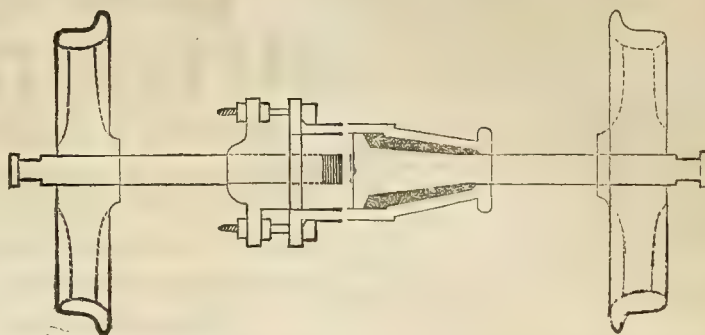
MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars

Stores, Cemeteries, Iron Safes, &c.,

Cor. Railroad Avenue and Market st.,  
n.124 NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

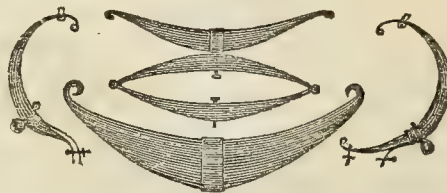
17104

**SAMUEL L. DENNEY,**  
Christiania, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

## M<sup>C</sup>DANIEL & HORNER,

**LOCO-MOTIVE AND CAR SPRING**



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to  
**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

NORRIS BROTHERS, Locomotive Builders, Philad.

A. C. GRAY, Pres't. New Castle Manuf. Co.

U. WELLS, R. R. Car Manuf. Petersburg, Va.

I. R. TRIMBLE, Supt. Philad. R.R. Co.

May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.

EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.

THOMAS DOUGHERTY, Master Mach. do.

THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.

## DURYEE & FORSYTH'S

PATENT

## PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

HEWSON & HOLMES,  
63 and 65 Walnut Street.

## THOS. M. CASH,

## PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 80, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a,

Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "

Charles H. Fisher, Esq. "

Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.

Pinckney Huger, Esq., Pres't N.E. R. R. Co.

Oct. 13-14.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,  
90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table, and witnessed its operation

WILLIAM B. FOSTER, Jr.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,  
H. J. LOMBAERT, Superintendent.  
ENGINEER DEPARTMENT, NORTH P. A. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,  
STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES, For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Plates, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES, For Railway Wheels. Railway Axles and Springs, SHAFTS,

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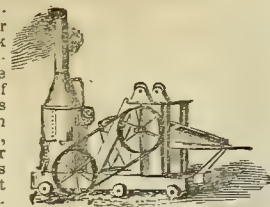
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28

PLATT STREET, New York!

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DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



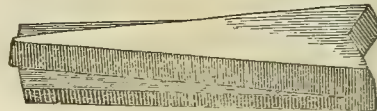
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

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nov17+

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Trinity Building, N. York.

## Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Guages

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

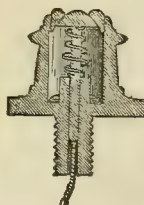
The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

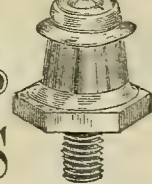
LEE & LEAVITT,  
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

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# Railroad Record.

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W. WRIGHTSON,  
T. WRIGHTSON, Associate Editors.

CINCINNATI:

THURSDAY MORNING, ..... DECEMBER 20, 1855.

OUR EUROPEAN AGENTS FOR THE RAILROAD RECORD ARE  
Messrs. ALGAR & STREET, of the London Provincial  
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## Railroad Record

PUBLISHED EVERY THURSDAY MORNING,  
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RESPONSIBILITY OF BROKERS.—The *Enquirer* of this city says it has deemed the following of sufficient interest to publish:

It has been decided recently in the Baltimore Superior Court that when brokers negotiates paper without disclosing the name of his principal at the time of negotiation, and the papers should afterward prove to be forged, he is liable to refund the money, though having no other interest in the transaction than the commission earned by the business. It thus appears to be the duty of a broker to know that the paper he passes to third parties are genuine signatures, and he is only exempted from its necessity by revealing the name of the parties to whom this paper belongs.

VOL. 3.—No. 43.

### RELATIVE PROGRESS OF VEGETABLE FOOD IN THE U. STATES, AND THE INCREASE OF ANIMALS.

In two or three articles, recently prepared for the *Record*, we have shown, *first*, that the increase of the classes, engaged in the various branches of the arts, and commerce, was much more rapid than that of those engaged in agriculture; and, *second*, that the town, or civic population, was increasing much more rapidly than that of the country, or rural population. In connection with these facts, we may remark, *en passant*, and as intimately connected with them, that the *prices* of agricultural produce have been for several years gradually growing higher, while on the other hand, the prices of manufactured goods have generally declined. This rotation of prices is perfectly consistent with, and indeed, is a direct consequence of the former facts, which we have stated, and illustrated in preceding articles.

We shall now proceed to inquire whether *vegetable food*, which is the basis of all animal life, has or has not increased in the United States in proportion to the increase of population. If it has, we at least, (whatever may be the case with others,) have not *lost* ground in relation to the due support of animal life. If it *has not*, then all the boasts we so frequently see, in the newspapers, about an unlimited power to supply Europe with food, is a mistake and a delusion. While we are obliged to use the returns of the Census, of 1850, as a basis, we are well aware, that the crop of 1849, on which it was based was comparatively a bad one, and that the present crop (1855) is a vastly better one. Nevertheless, it is probably true, that the crops of 1854 and 1855, taken together, would not make more than an average production.—Comparing, then, the crops returned in the two Censuses of 1840 and 1850, and the increase, with the increase of population, we shall get a pretty near approximation to the relative growth of food and population in the United States. In doing this, it is not necessary to give the smaller crops in detail, but only the large crops, which support men and animals; and with them the number of men; and the number of animals, which are used as food. The latter is not indeed essential, for vegetable food of some kind is the basis of all animal life, and therefore to determine the crops is enough to determine all. But the number of animals used for food will illustrate the conclusions, and therefore we give it.

In the table below the first column gives the number for 1840; the second for 1850; the third the ratio of increase, and the fourth the variation from what *ought to have existed* in 1850, in order to be equal to the ratio of increased population:

|                  | 1840        | 1850        | Ratio.     | Variation. |
|------------------|-------------|-------------|------------|------------|
| Population.....  | 17,069,453  | 23,191,876  | 36 per ct. | —          |
| Wheat (bu.)..... | 84,823,272  | 100,485,944 | 20         | 15,000,000 |
| Corn.....        | 377,531,875 | 592,071,104 | 57         | 76,000,000 |
| Rye.....         | 18,645,567  | 14,188,813  | —          | 11,000,000 |
| Oats.....        | 123,071,341 | 146,584,179 | 20         | 20,600,000 |
| Hay.....         | 10,248,108  | 13,338,642  | 36         | —          |
| Cattle.....      | 14,971,586  | 18,378,997  | 24         | 1,800,000  |
| Sheep.....       | 19,311,374  | 21,723,220  | 13         | 4,500,000  |
| Swine.....       | 26,301,293  | 30,254,213  | 15         | 4,600,000  |

Here it will be seen that there is a *deficiency* in everything, except corn; that is, there is less than there should have been in order to make the amount correspond with the increase of population.

In regard to corn, at least 15,000,000 of bushels of the increased product is used in whiskey, which enters not at all into food.—Deducting this we have the following results:

|                        | DEFICIENCY.         |
|------------------------|---------------------|
| Wheat.....             | 15,000,000 bushels. |
| Rye.....               | 11,000,000 "        |
| Oats.....              | 20,000,000 "        |
| Total.....             | 46,000,000 "        |
| Increase corn.....     | 61,000,000 "        |
| Apparent gain, do..... | 15,000,000 "        |

But, it must be observed, that wheat is almost exclusively used among the white inhabitants for bread; and that of corn we are now exporting (which we formerly did not) an amount equal to the apparent gain. On the whole, it is apparent that the increase of vegetable food, in the United States, has rather fallen behind than kept up with the progress of population. It is also apparent, that in future, the great *staple* in breadstuffs for us, and for the world, is the Maize, or Indian corn. This is the only crop, even in our fertile country, which keeps up and goes beyond the increase of population. It may be well to look for a moment at the increase of this crop. We have the following data for a calculation, viz:

|                                            |                      |
|--------------------------------------------|----------------------|
| Corn crop of 1840.....                     | 377,531,875 bushels. |
| " " 1850.....                              | 592,071,104 "        |
| Annual Increase.....                       | 6 per cent.          |
| Crop of 1855 calculated on this basis..... | 800,000,000 bushels. |
| Probable crop of 1860.....                 | 1,000,000,000 "      |

This increase, however, will not take place unless we find a foreign market, which we shall probably do. On this head we intend hereafter, to give the data for supposing that the rapid increase of the corn crop will continue.

One of the most remarkable facts, in relation to the diminution of the agricultural production, is that of the diminished *relative* increase of *animals*.

Take the following proportions:

|                             |             |
|-----------------------------|-------------|
| Increase of population..... | 36 per cent |
| " horses.....               | 14 "        |
| " cattle.....               | 23 "        |
| " sheep.....                | 13 "        |
| " swine.....                | 15 "        |

These are very instructive facts. They teach very distinctly some of the principles which have been silently at work, to raise the prices of wheat, of beef, and pork; nor, do we see, for this state of things, any remedy but the increased application of labor to agriculture; and, as there is no power to enforce this, but the presence of a real scarcity,



so we can see no permanent diminution of prices; nor, indeed, a probable cessation of the rise, till high prices react, in producing a renewed attention to agricultural employments.

There is another question, connected with the production and consumption of vegetable food, of great interest and importance. Other parts of the world are even less fortunate, than ourselves. The result is that there is a pressure upon this country to supply the wants of Europe. The export of breadstuffs, at this time, is beyond anything this country has ever known. With high prices, and a good harvest, this demand will be supplied for a time. But, as the facts above stated, prove that our surplus, especially of wheat, cannot be very large, it follows that this demand, if continued, will so far exhaust the country as to make prices still higher; and, in fact, almost exhaust the home supply of wheat flour. If this be repeated from year to year, where will it end? Can we increase the supply of wheat so as to meet a perpetual European demand for grain? or, must the people of Europe come here in still greater numbers? or, finally, as we just remarked, is not Indian corn the last resource, and hope of nations?

Our opinion on this subject is fixed; that, as corn is the great staple of our country—is easily raised, and may be indefinitely extended; that this crop will go on increasing, at a very rapid rate, and that it will be exported to Europe in immense quantities. In looking to the increase of vegetable food in the United States, we think it evident that the productions which are likely to increase most rapidly, are those of corn, potatoes, sugar cane and grapes. If we are right in this supposition, the United States have yet before them a field of vast enterprise and profit in agriculture.

Of the prodigious increase, in the production of corn, we have already spoken. The facilities of increase in the other articles are equally great. Two articles of agricultural production have begun to make rapid progress; which we doubt not will hereafter make staple crops of vast importance. The first is *sugar cane*. In the last twenty years the sugar crop of Louisiana has increased fourfold, having risen from 100,000 hhd. to 400,000 hhd.

Since the introduction of Texas, the land suitable for the cultivation of the cane has been greatly increased. We suppose there can be no doubt of the capacity of Louisiana and Texas to raise a *million of hogsheads of sugar*, without any great effort. This is equal to a thousand millions of pounds—quite a large item in the general provision of food.

The *vine* is a recent and much smaller addition to our agricultural list. But large parts of the U. States, and especially the

valleys of the Ohio and the Missouri, are admirably adapted to the cultivation of the vine. The time is not distant when millions of gallons of wine will be made on the Ohio.

The potato is a native of America, but has been much less attended to in the U. States, than it ought to be. At 100 bushels per acre, which with suitable soil and culture, is a small crop, it is one of the most profitable raised.

We conclude, therefore, that while it is an entire mistake to suppose the United States can supply the world with wheat, when the world has driven its agricultural laborers into the hot beds of cities; yet, the United States has a staple grain, in Indian corn, which can supply the world, and there are new crops with which America can enrich itself.

#### TAXATION ON RAILROADS.

We extract the following just remarks from the opinion of Hon. Judge McLean, on a suit in which the Indianapolis and Bellefontaine Railroad was defendant, at the May term of the Circuit Court of the U. States, for the year 1855:

"Railroads have contributed more to the facilities of intercourse, the interest of agriculture, to build up towns and extend our internal commerce, than all other improvements. But in the construction of these works, heavy expenditures have been incurred, and large debts contracted by way of loans of money and otherwise, so that the companies are ill able to bear the pressure of a heavy taxation. The expense of running the cars, making repairs and meeting contingencies, is very great; and when to this shall be added the interest on debts incurred, little or no profit can be realized to the stockholders for some years after the road is in operation. Lands, of necessity, are often received in payment of stock. These lands are taxed the same as lands held by an individual, on the plausible ground that the lands of a corporation should be taxed the same as the lands of an individual. But these lands are never held by the corporation for the purposes of culture, but to be converted into money, or for the occupancy of the road. They do not in the general, as the lands of an agriculturalist, afford a profit by an increase of value. But the corporation is taxed for the lands, and also for the structures made by borrowed capital. This, in effect, is a taxation on borrowed money, and is an addition to the interest.

"In all enterprises intimately connected with the public interest, such as railroads, banks, &c., which require a large investment of capital, there is no mode of taxation so equal or just as a tax upon the profits. Such investments are subject to many contingencies, which do not affect real estate. No estimate can show the expenditure required on

a railroad, nor the losses of a bank. As common carriers, the railroads are responsible for injuries done to persons and property, through the neglect or want of skill in their agents; and experience has shown that juries are inclined most liberally to compensate all who suffer, by finding liberal if not extravagant damages. Banks are liable to imposition and losses through the failures of borrowers, counterfeit notes and drafts, which no one can foretell. These casualties place at greater hazard the moneys invested in railroads and banks than in real estate; and although these establishments may be owned by individuals, yet they are so intimately connected with the public interest and welfare, that stockholders are distinguishable from the owners of other property.

"Taxation should be so laid on each classification of property as to operate equally. Now, nothing can be more unequal than the above taxation of railroads. The cost of the work affords no criterion in regard to the profits; this depends upon location and other circumstances, which have no connection with the cost of construction; and yet all of them afford more or less public accommodation.

"These great improvements are made, generally, with the means afforded by capitalists of other States or countries, and we are enriched by the expenditure. These roads will not be kept in good repair, and be safe for passengers, unless the stockholders shall receive a reasonable interest for their advances. And this, and an entire equality of taxation, can only be attained by a charge on the profits. From indications not to be mistaken, these great lines of intercourse are in danger of being embarrassed, if not destroyed, by taxation."

#### THE PACIFIC RAILROAD—TEXAS AND SAN DIEGO ROUTE:

We find in the *Indianapolis Republican*, the following paragraph;

"The Texas route cannot terminate at San Diego, for its approach for 45 miles east of it is impracticable, on account of mountains, and even if it could be approached, the harbor, though good, is very small. The harbor at San Pedro is but an open roadstead at which no vessel can lie with safety. So that this road must of course go to San Francisco."

We do not know how this idea got out, we have seen it in other quarters, but, it is a great mistake. Not only have we Col. Gray's report, but, the whole distance has been surveyed with *transit and level*, by the *San Diego and Gila Railroad Company*. The results are as follows:

|                  |                                                         |
|------------------|---------------------------------------------------------|
| Nine miles       | 6 feet grade to the mile,                               |
| Three and a half | average 5 <sup>1</sup> / <sub>2</sub> highest, 57 feet, |
| Nineteen miles   | about 7, as the first return.                           |

This was the first section out of San Diego, and it is as practicable a route as either of our mountain roads. The whole distance to the Gila was likewise surveyed, and found perfectly practicable. Beyond, the point where the measurements above were taken, the most mountainous route was surveyed, and found at no point above 107 feet, which by excavation may



be reduced to 60 feet. So the case is entirely settled, the San Diego route is in fact the most practicable to be found.

The writer is equally mistaken as to the harbor. We have the highest authority for saying, that the harbor of San Diego is a good one, but it is long and narrow, like a sluice. This is no great objection, for, it is a good harbor when the vessels are in and they can get in with but little trouble.

The *Republican* is right, as to the harbor of San Pedro. There is no good harbor, between San Diego and San Francisco. It will be for California to make a railroad from San Diego.

#### THE OHIO AND M. R. R. COMPANY—WHAT IS TO BE DONE.

We are not informed, as to what is done, towards the subscription of the 3d Mortgage Bonds. We should take it for granted, that the merchants and business men of Cincinnati had subscribed the whole amount of Bonds required, and had done it at once, if we had not observed, on similar occasions, how utterly blind men frequently are to their own interest, and how absolutely deluded, in regard to facts, with which all men should be acquainted. Nothing is more clear and demonstrable, than that this road, once finished, would be very profitable. The third Mortgage if taken would make the whole debt less than six million, on the Eastern Division viz:

|                   |             |
|-------------------|-------------|
| 1st Mortgage..... | \$1,980,000 |
| 2d Mortgage.....  | 1,500,000   |
| 3d Mortgage.....  | 2,500,000   |

Debt.....\$5,980,000

Taking the pro rata to Vincennes of probable profits, and it amounts to \$1,100,000. The interest on the debt is but \$420,000. If the road is but half as profitable, as we have every reason to believe it will be, the income will pay the interest, and \$200,000 over. But, in truth, there is no doubt this will be the best of the long roads in the country. Of these the Erie Road will pay six million gross the present year, on 460 miles. Why should not this pay \$4,000,000, on 360 miles? No man can pretend to give any reason.

But, this was not what we were about to say, we intend merely to notice two or three ideas afloat in this community on this subject. The first is that the Company have not given a fair statement of accounts. We are informed by the President that the aggregates as given by him to a public meeting are correct, but, that to examine, and inquire into every minute detail, in numerous volumes would require a length of time, for which they could not wait. As the third mortgage holder will have priority to all debts and stockholders except the mortgages, we cannot see that they are materially interested in the question of account.

Secondly, it is said that the Bondholders will be obliged to finish the road. Not unless they please. It is perfectly demonstrable, they can pay their interest without finishing one third the unfinished portion of the road.

Thirdly, we are told that some persons and among some of the Directors have a plan of leasing the road. Against this every Stockholder,

Bondholder, and party in interest, especially the city of Cincinnati, ought to protest. The city would instantly lose its \$600,000, and for whose benefit? Speculators only. No wonder such a scheme is got up, for, there is not a monied man in America or Europe, of any sagacity, who would not grasp at it. Suppose for example, a lease was given of the *Ohio and M. R. R.* to Vincennes for ten years only, the result would be very nearly as follows:

|                                        |             |
|----------------------------------------|-------------|
| Cost to finish and pay debts.....      | \$3,600,000 |
| Ten years interest on \$5,500,000..... | 3,850,000   |
| Cost and interest.....                 | 5,850,000   |
| Ten years net profit.....              | 10,000,000  |
| Clear profit.....                      | 4,150,000   |

The Lessees would receive interest on all their capital, and walk off with five millions net profit!

It is said the road will not make that profit, then, it is unlike any other long road made in America, contrary to all experience, and all calculation. There is much more probability, that it will clear fifteen than ten millions, in ten years.

If it is to be leased, let the city of Cincinnati have it, and save both her credit, and her money. At any rate, no Board of Directors should be allowed to make any long lease of such a long road as this.

#### RAILWAY TELEGRAPHS.

We believe there is only one railroad in the country which habitually and constantly employs the telegraph, and that is the New York and Erie, which, at its own expense, has erected wires along its entire line. The expense of putting up this telegraph was some \$50,000, and the cost of operating it is about \$30,000 a year; yet the Superintendent, Mr. McCallum, states that the value of the services rendered by it is more than \$100,000 a year. By its means each Division Superintendent maintains a constant control over all the trains in his division, and it frequently happens that every train is running under special orders transmitted by the telegraph. Indeed, whenever any train is more than ten minutes out of time, the fact and cause of the delay are at once reported to the General Superintendent for his action. Thus every employee on the road is held to constant accountability for any delay occasioned by his fault.

Every railroad in our country should have its own telegraph.—*Scientific American*.

The editor of the *Scientific American* has not been abroad lately; or, if he has, must have traveled with his eyes shut. There are other roads in this country that operate the electric telegraph along their lines for their own exclusive benefit and have the principal telegraph station in their Superintendent's office. However this is not the first good idea and excellent arrangement belonging to others, that the New York papers have arrogated for the New York & Erie Railroad.

RAILROAD STATIONERY.—We would call the attention of our railroad friends to the Card of Applegate & Co., Stationers and Booksellers. Those in charge of departments would do well to examine their Railroad Stationery.

## Railroads.

### VICKSBURG, SHREVEPORT AND TEXAS R. R.

We have been favored with the third Annual Report of this road, made to the stockholders Sept. 24, 1855. This we regard as one of the most important of the southern lines yet unfinished, inasmuch as it will be the direct continuation of the Southern Pacific Railroad to the Mississippi river. The following, from the Engineer's report, gives the main characteristics of the line:

|                                 |              |
|---------------------------------|--------------|
| Length of Eastern Division..... | 74.25 miles. |
| “ Middle “.....                 | 96.50 “      |
| “ Western “.....                | 19.25 “      |

|                                  |                   |
|----------------------------------|-------------------|
| Total length of road.....        | 190 miles.        |
| Summit Level.....                | 306 feet.         |
| Maximum grade.....               | 42 “ to the mile. |
| Minimum radius of curvature..... | 2865 feet.        |

|                                                    |             |
|----------------------------------------------------|-------------|
| AMOUNT PAID OUT FOR CONSTRUCTION AS PER ESTIMATES. |             |
| Eastern Division.....                              | \$50,332 48 |
| Western “.....                                     | 13,722 20   |

|                                            |             |
|--------------------------------------------|-------------|
| Total.....                                 | \$64,054 68 |
| Add for work done by Fanning, Grant & Co., | 9,800 00    |

Makes the total value of work done....\$73,854 68

|                                           |                |
|-------------------------------------------|----------------|
| Amount required for the East'n Division.. | \$1,550,000 00 |
| “ “ West'n “ ..                           | 200,000 00     |

Total required at present.....\$1,750,000 00

The following is the summary of the bridging:

Through a country of such uniformity, we find the water courses present the only features of note. In the item of bridging in the annexed estimate, I have considered for.

Roundaway Bayou—a lattice bridge of 320 feet, 4 spans of 80 feet each, resting upon pile piers. Abutments to be of brick. This bayou has a good clay bottom. Ordinary water, 16 feet; highest water, 36 feet.

Tensas River—a lattice bridge of 300 feet, spans 100 feet each, resting upon brick piers and abutments. We have here a hard shell bottom. Low water, 2 feet; high water, 28 feet. As the head of steamboat navigation is but seven miles above our crossing, there will doubtless be no difficulty in making arrangements with the few interested parties, whereby the necessity of a draw will be obviated.

Macon River—a Howe's truss bridge, of 300 feet, inclusive of pivot draw of 100 feet. Spans each 100 feet; brick piers and abutments; the piers to be cornered with timber and sheeted with plank retained by bands. Here we have a sand bottom, fordable a short distance below our crossing. Little difficulty will be encountered in securing a firm foundation. Low water, 3 to 4 feet; high water, 30 feet.

Boeuf River—a Howe's truss bridge, 300 feet inclusive of draw—same as for Macon. Low water, 4 feet; high water, 34 feet.

Each of these rivers may be made tributary to our road, bringing from considerable distances up their courses, by means of flat and keel-boats, large quantities of freight to be transferred to the road at stations arranged for its reception. Believing it will prove to the interest of the company to facilitate such a business, I have included in the annexed estimate the outlay necessary for these as well as the Ouachita river stations.

Trestle bridges will be used at all other crossings, including Joe's Bayou and Crew Lake, which last will require 550 feet—ordinary water 10 to 12 feet.



|                                                                           |              |
|---------------------------------------------------------------------------|--------------|
| The amount received into the Treasury, as shown by statement "B," is..... | \$111,750 55 |
| Expenses for Construction.....                                            | 69,000 62    |
| "    Engineering.....                                                     | 26,206 47    |
| "    Printing.....                                                        | 1,512 30     |
| "    Salaries.....                                                        | 9,094 99     |
| "    Office Expenses.....                                                 | 825 81       |
| "    Contingent.....                                                      | 937 84       |
| "    Right of Way.....                                                    | 24 00        |
| "    Reduction Stock by Tax.....                                          | 58 45        |
| "    Commission to Collectors.....                                        | 205 43       |
|                                                                           | \$107 895 91 |

Leaving a cash balance in the Treasury of.... \$3,864 64

It will be borne in mind that the above statement exhibits the entire receipts and disbursements of the company since the adoption of our charter. It does not, however, show the work done by Fannin, Grant & Co., amounting to about \$10,000, because no estimate of their work has been returned to the President. To those acquainted practically with railroad building, the expenditure for the Engineering Department will appear very small, while possibly, to others not acquainted with such operations, it may seem large; but a comparison in this respect with other roads must convince any, who think our expenditures have been unnecessarily large, of their error. Some of our stockholders have thought the road should have been built upon the preliminary survey, and no more money paid out for engineering than is necessary to lay off the work for contractors, and then make it after it is done. To such we would say, that by the expenditure of only a few thousand dollars in engineering, we have shortened the line of our road *seventeen miles*, and shall save more than a half a million of dollars to the company. A great deal has been said in some parts of the country about officers' salaries eating up everything. Now, in fact, the whole amount paid for officers' salaries, during a period of nearly three years, is less than is paid in one year to the Chief Engineer on some roads, and the salaries of our officers are only about one-half what is paid on other roads. The Board of Directors are resolved on studying the most rigid economy in all things, and they invite the strictest examination into their expenditures. Our books are open at all times for the examination of the stockholders, and we are always glad to see any of them in the office.

It is contemplated in our contracts to do one-half the work of construction on both the Eastern and Western divisions during the next twelve months, and to lay the iron on thirty miles of the road from the Mississippi river West. To do this amount of work, and furnish the iron, together with one-half the needed buildings and one-half the rolling stock required on the Eastern division when completed, will require an estimated appropriation during the year of \$835,500. The resources of the company to meet this appropriation are—

Capital stock to be paid out for work done, according to the stipulations of our contracts—the certificates to issue upon bimesnal and quarterly estimates:

|                                                     |                  |
|-----------------------------------------------------|------------------|
| 1st—On Eastern division, (Fannin, Grant & Co.)..... | \$288,750        |
| 2nd—On Western division, (Flournoy & Co.).....      | 40,000—\$328,750 |

Bonds of the Company to be paid to contractors for work:

|                                                                        |                  |
|------------------------------------------------------------------------|------------------|
| 1st—Eastern division.....                                              | \$57,750         |
| 2nd—Western division.....                                              | 35,000—\$ 92,750 |
| 3rd—State Bonds to be used in the purchase of iron.....                | 172,000          |
| 4th—Cash to be raised upon individual and municipal subscriptions..... | 242,000          |
|                                                                        | \$835,500        |

The progress of our work depends entirely upon this last item. If we can realize this inconsiderable sum of money upon our local subscriptions during the year, the work will go on as fast as contemplated. We are sanguine that not only this amount, but a much larger amount may be raised during the year, and if so the work will be pushed forward proportionately faster.

|                                                                                                                                                                                                                                                                                                |              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| The amount now due on our individual subscriptions is.....                                                                                                                                                                                                                                     | \$142,234 00 |
| About \$35,000 of this amount is in the shape of good drafts upon commission merchants in the city, and notes upon the subscribers drawing 8 per cent. interest. The 5th and 6th instalments of the individual subscriptions, the latter of which falls due 1st of March, 1856, amount to..... | \$122,425 00 |
| The amount now due from the parish of Madison is.....                                                                                                                                                                                                                                          | \$20,000     |
| Falling due in 1856.....                                                                                                                                                                                                                                                                       | 20,000       |
|                                                                                                                                                                                                                                                                                                | \$40,000 00  |
| The Municipal subscription of the of the city of Shreveport \$6,000, less stock reduction \$2,000.....                                                                                                                                                                                         | 4,000 00     |

Total amount due upon our local and private subscriptions on the 1st of March next..... \$268,659 00

It is thought by our collecting agents, who are best acquainted with the condition of our subscribers, that 5 per cent will cover the losses, but if we deduct ten per cent. we shall still have \$277,794 to meet our cash engagements of the ensuing year of \$242,000.

We expect, in addition, to be able to increase largely our subscriptions between this and Spring. The city of Vickburg has promised a municipal subscription of \$100,000, and we rely upon getting it. Our road has some ardent friends in New Orleans, and they have promised to raise us a private subscription of \$100,000 in the city this Fall.—We shall expect to get it.

We have been greatly embarrassed in our operations during the past year from causes well known to our Stockholders. The season has been a most unprecedented one.—Nothing like it has ever been known in our country. The drought of 1854, which had resulted in producing a grain crop too short to supply the wants of the country, has been protracted in a degree which has rendered our water-courses innavigable to the present time. In consequence of this large quantity of the cotton grown in 1854 is still in the country, and much of that which was sent to market found its way to New Orleans at a cost of from seven to fifteen dollars per bag. Before navigation entirely closed on Red river, up freight rose as high as eight dollars per bbl. to Shreveport. But for some months navigation has been entirely suspended, and planters residing in the extreme Northwestern parishes of the State, and even in Texas, have been compelled to send teams to the Mississippi river to purchase the necessities of life. A large number of wagons have been sent from Fannin and the adjoining counties in Texas to Alexandria and the mouth of Red river, a distance of some three hundred and fifty miles. Some idea of the difficulties under which the people in the interior and back country are now laboring to procure supplies may be formed from the prices which Western produce has borne during the present season at Shreveport.—Pork has sold at thirty-six dollars per barrel; Bacon sides twenty-two cents per pound; Lard, fifty cents per pound; Flour, from twenty to thirty-two dollars per barrel; Salt, fourteen dollars per sack; Corn, two dollars and fifty cents per bushel. Nothing but money could purchase these articles, and it has fre-

quently happened that they could not be purchased at any price with money.

Under these circumstances it has taxed the energies of the country to provide means of subsistence, and men in independent circumstances have not been able to pay their State taxes. This state of things in the country has operated most disastrously to the commercial interests of New Orleans, and rendered it impossible for merchants to assist planters by any further advances. Four hundred thousand bags of the cotton, which annually has its market in New Orleans, goes out of the mouth of Red river; and this great commercial fact so completely identifies the interests of our immediate country with those of the city, and establishes such a mutual dependence between the receipts of our crops and the extent of their business, that we need only observe the condition of our people here at home to judge of the prosperity of our commercial metropolis. Another circumstance has contributed to the scarcity of money, and added to the difficulties of procuring additional subscriptions and collecting instalments already due. Since your last annual meeting the reservation of land, which had been made along the line of our road by order of the President of the United States, has been lifted and the lands again thrown on the market. Many of our subscribers had homes to secure, and were compelled to use all the money they could raise for this purpose. And thus the Land Offices have drained the country of a great deal of money which, otherwise, might have been appropriated to the railroad.

But, under all the disadvantages which we have labored, a force, varying from sixty to four hundred hands has been constantly at work, and all the work done for which estimates have been returned to this office has been paid for; and, we feel that, we have great reason to be thankful that, except in some limited localities of sparse population, and isolated cases, there has been no actual suffering—no general distress in the country. Some how or other the people have made out to get along; and a kind Providence has again clothed our fields with a crop which promises to reward our labors with a fair average yield—sufficient to meet the wants of the country. We have been taught a lesson of economy which may prove of infinite advantage to us. The people have been fully aroused to the importance of our road, and when navigation opens and money begins to come into the country, we shall be able to make fair collections and largely increase our subscriptions along the line of the road.

Important changes have been made during the year, and the entire line of our road has been put under contract. Of this you were advised by a circular, addressed to the Stockholders, bearing date April 21st, 1855. Subsequent to the issuance of that circular some changes were made in the contract to our advantage. As it now stands the parties known to us in the contract are L. P. Grant, Wm. F. Fannin, A. B. Fannin, B. F. Chapman, A. M. Ragland, S. P. Myrick, J. U. Horne, of Georgia, and Col. N. D. Coleman, well known to you. These parties are associated under the name and style of Fannin, Grant & Co., and constitute, we are well assured, the most reliable and responsible contracting company ever formed in the Southern country. They receive in payment for their work fifty per cent. in the capital stock of the Co., and the balance in cash, and the



Bonds of the Co. They have done about ten thousand dollars worth of work, and have contracted for the delivery of cross-ties for eighteen miles of road by the first of next month. Ten miles of road opposite Vicksburg will be ready for the iron before we can get it delivered. We shall be able, however, to furnish them with the iron in December, to purchase which we have reserved our State Bonds, which are now about par. Messrs. Fanin, Grant & Co. will have a large negro force from Georgia on the road, as soon as the subsidence of yellow fever on the Mississippi river will render it prudent for them to come.

But for the yellow fever this additional force would now have been on the road at work. For further particulars of the progress of work upon the Eastern division, you are referred to the very able report of the Chief Engineer. And for a description of the line, an accurate account of the surface of the country and the nature of the soil, together with a statement of what has been done in securing the right of way, and depot grounds you are referred to the very clear and interesting report of the Resident Engineer.

The contractors upon the Western division have done about fourteen thousand dollars worth of work, which was faithfully done according to contract. But it was found impossible to go on with that work and make the cash payments stipulated to be made to Morris & Rhodes without realizing anything upon the Municipal subscription of the parish of Caddo, the collection of which has been unexpectedly delayed. We have accordingly succeeded in effecting a change on this division also, by means of which the work has been placed in the hands of a wealthy company of well-known planters, consisting of A. Flournoy, Jr., Doctor Alfred Flournoy, Col. D. J. Hooks, V. H. Jones, W. E. Doty, and J. M. Ford, who have agreed to build the road at the same prices we were paying the former contractors, and receive in payment only twenty-five per cent. in money; forty per cent. in Stock of the Company, and thirty-five per centum in Bonds of the Company.

By reference to the Secretary's report, annexed and marked "A," it will be seen that he places our entire resources for the future at one million five hundred and thirty-six thousand two hundred and eighteen dollars and fifty-two cents. This is the amount of our Stock subscription minus the amount already paid, as taken from his books, but it does not include the amount we are to receive in work for stock issued to our contractors, and which will probably reach one million eight hundred thousand dollars, and swell the amount of our future resources available in the construction of the road to three millions three hundred and thirty-six thousand two hundred and eighteen dollars. We take this occasion to suggest to the Stockholders the necessity which will be found to exist of increasing our capital stock by an amendment of our Charter.

Your attention is particularly invited to the remarks upon the importance of our road with which Col. Bonner closes his very able report. His opinion of the value of the stock as an investment for money, is fully sustained by statistics collected from the most reliable resources, and if the business of the road were estimated upon the present production and travel of the country, without allowing

anything for increase, it would be found amply sufficient to yield remunerating profits to the Stockholders.

The travel through Shreveport to Texas, including emigrants was ascertained to exceed one hundred thousand persons in one year. It is beyond all question that, if the road had been done this year, it would have carried over three hundred thousand bags of cotton to market. But we will put down the through travel each way at 50,000, making 100,000 through passengers, at \$10.....\$1,000,000  
Local travel of Louisiana and Southern Arkansas 25,000 passengers each way—50,000 at \$4.....200,000  
200,000 bags cotton, at an average of \$1.50....300,000  
Return freight equal to the cotton transportation.....200,000  
Carrying U. S. Mail.....30,000

Deduct forty per cent. for expenses.....\$1,820,000  
732,000  
Leaving a net income of.....\$1,088,000

This is more than 20 per cent. upon a capital of five millions. But what estimate should be made for an increase of business when the road shall come to develop the country through which it passes, and when the tide of immigration now flowing into Texas shall fill up that immense country? The State of Texas is six times as large as the State of Georgia, and contains ten times as much good land. Now cast your eye for a moment upon a map of the United States, and see how much of the trade and travel of this great State is likely to pass over this road. But more than all this, the Government of the United States has had all the routes spoken of to the Pacific surveyed, and the results with estimates of probable costs have recently been published. The elements of comparison have been thoroughly considered by those every way competent to the task, and who were by no means biased in favor of the Southern route, and the result is conclusively in favor of the route on the 32 parallel of latitude, and this even making the city of New York as the great commercial centre of the country, the point of departure on the Atlantic. Taking New Orleans, Charleston and New York as so many points of departure, and the Southern route has the shortest mean distance. It is not only the shortest to the Pacific, but it is the shortest to San Francisco. It has thirty per cent. of arable land more than any other route; and will cost fifty millions of dollars less to build it. The summit levels are more than a thousand feet less on this than on either of the other routes, and in point of climate it has immensely the advantage. For New Orleans, for Charleston, for Vicksburg, for the Southern States, our road must form a link of the trunk road to the Pacific.

#### RAILROADS IN WESTERN IOWA.

The Council Bluffs Bugle gives the following in regard to the railroad prospects in this section:

There are three several Railroads surveyed from the Mississippi river, on a line westward to this place, two of which are already being constructed, and are fast progressing toward this place—one is completed upon which the cars will soon be running to Iowa City. It is a universally conceded fact, by those who know, that the Platte valley is the only practicable route for a railroad to the Pacific.—Our city being situated on an almost direct line westward from the great cities of the east, this place will be the great half-way de-

pot, for the immense trains that go to, and return from the Pacific. Our advantages in agriculture and stock growing are unbounded. As there are millions of acres of the finest pasture and meadow land lying to waste, that will not for years be improved, and in the low bottoms we have immense beds of rushes upon which stock will winter and keep fat.

#### LEXINGTON & DANVILLE RAILROAD—KENTUCKY RIVER SUSPENSION BRIDGE.

BURNET HOUSE, Nov. 23, 1855.

TO MESSRS. E. D. MANSFIELD AND LARZ ANDERSON, Cincinnati.—*Gentlemen:* Just returned from a visit to the works of the Lexington and Danville Railroad, and imbued with a small portion of that ardent zeal which enables Gen. Leslie Combs, the President of that road, to struggle through great difficulties and embarrassments in his efforts to complete the line, I improve this occasion by addressing you on the subject of the KENTUCKY RIVER SUSPENSION BRIDGE, and of the KENTUCKY CENTRAL RAILROAD, of which the Covington and Lexington line and the Lexington and Danville Railroad are the first two links.

The Kentucky Central Railroad is designed to connect Cincinnati with the system of southern roads, which extend through the States of Tennessee, North and South Carolina, Georgia, Alabama and Mississippi. Four thousand miles of these roads are stated to be in running order, and several thousand miles more in course of construction.

The whole of this great region is now a sealed book to your merchants. But once opened by the Kentucky Central road, and an entire new commerce will spring up.

I am informed by good authority, that there are three hundred teams employed in Tennessee, in hauling copper ore from the mineral region to a point on the Georgia and Tennessee Railroad, about thirty miles from Knoxville. There it is placed in cars and sent by railroad to Savannah, where it is shipped for New York. Were the Kentucky Central Railroad completed, those inexhaustible beds of copper ore, with vast beds of iron ore and marble, would be under 300 miles by rail from your own furnaces and shops.

The length of the Covington and Lexington Railroad is.....96 miles.  
The length of the Lexington and Danville Railroad is.....34 "  
From Danville to Tennessee line, about.....90 "  
Thence to Copper mines, about.....60 "

Total.....280 miles.

The Covington and Lexington road is in running order and doing a fine local business steadily increasing. The Lexington and Danville road is so nearly completed to the Kentucky river, that the balance of the Cincinnati subscription, together with the contributions along the line, will enable Gen. Combs to put it in running order.

The great local traffic which will then be attracted, will insure increased confidence in the success of the road, and will support the General in his efforts to raise further subscriptions and to dispose of his bonds. Once at Danville, and the worst features of the ground are overcome; the remaining eighty or ninety miles to the Tennessee line will be light work with easy grades. This part of the line is expected to be constructed by the aid of county subscription, surplus mortgage bonds authorized to be issued, and of your city and citizens. Just consider what a rich harvest you will reap, by a judicious expenditure of a small amount compared to the cost



of other roads not half as valuable. You will extend your commerce into vast regions of seven of the richest States in the South, all of them now disconnected from you, and foreign to your market! The value of locomotives and cars now running on those four thousand miles of southern roads, is estimated at \$16,000,000.

The gauge of the Kentucky Central road is five feet, the same on all those southern roads; consequently, your manufacturers may send their engines and cars throughout the South with the least expense.

For the great amount of agricultural implements, household furniture, manufactures of every variety, and provisions, your city (excepting Louisville) will become the only market. But it is unnecessary for me to direct your attention to these great prospects of trade. Your business men are fully alive to them, and are well aware of the immensity of the business that may with certainty be calculated upon, if once this road is completed. The *Lexington and Danville road* stands most in need of your sympathy and support.

With the balance of your subscriptions, Gen. Combs, by his economical management, will be enabled to reach the river. This point reached, and the completion of the line to Danville is certain within a brief period of time.

My principal object in addressing you, is to offer a few remarks on the subject of the great *Suspension Bridge*, by which the Kentucky river will be crossed, and which work has been entrusted to my charge. The Niagara Railroad Suspension Bridge, which I completed last spring, forms a span of eight hundred and twenty-two feet from centre to centre of towers. It has proved entirely successful, and its stiffness is greater than that of any wooden railroad bridge in this country.

With the additional experience I have gained on the Niagara Bridge, it is not to be feared that I should fail in the Kentucky river Bridge. The same views and principles which have guided me in the one case, will guide me in the other. Although the span of the Kentucky Bridge will be twelve hundred and twenty-four feet, or one-half more than the Niagara Bridge, there is no reason to doubt its success. It is comparatively easier to produce a certain degree of stiffness in a large span, than in a smaller—for the reason, *that the larger the span the greater its weight, and the more force is required to disturb the equilibrium of that suspended weight.* When a train enters upon the Niagara Bridge, a slight depression, not perceptible to a casual observer, is produced at the end of the bridge. But at the same time a corresponding rise takes place at the other end of the span. Now the heavier the superstructure and *total suspended weight*, the greater will be its resistance to a force which is disturbing its equilibrium.

I will close these remarks by assuring you, that I do not entertain the slightest doubt as to the complete success of the Kentucky river Suspension Bridge, and will add that this great work of art, surrounded by such magnificent scenery, will form one of the most attractive points on the whole route. With a sincere wish that your efforts for the success of that great national highway may be crowned with success, I remain, gentlemen,

Your friend and servant,

JOHN A. ROEBLING.

# LEXINGTON AND DANVILLE RAILROAD.— IMPORTANT LETTER FROM GEN. LESLIE COMBS.

OFFICE LEX. & DANVILLE R. R. Co.)  
Lexington, Dec. 1st, 1855. }

Messrs. LARZ ANDERSON and JAMES HALL, CINC., O.  
*Gentlemen:*—By request of several Cincinnati stockholders, I take leave to present the following authentic facts as to the present condition and future prospects of the *Great Central Railroad through Kentucky*, of which the road from Covington to this city forms the first *link*, and that from here to Danville the second and most important, as well as the most costly one, leaving only *one other* between Danville and the Tennessee line, to one or more points, as may be deemed necessary, to unite Cincinnati with the whole Southern system of Railroads.

There are but four counties directly interested in the road under my charge (2nd link), viz: Fayette, Jessamine, Mercer, and Boyle. Lexington being the county seat of the first, and Danville of the last named; and they have subscribed and *punctually paid*, with few individual exceptions, the following amounts of stock:

|                                                |           |
|------------------------------------------------|-----------|
| 1st. Fayette—in County 6 per cent Bonds.....   | \$200,000 |
| In cash by individuals.....                    | 52,600    |
| 2nd. Jessamine—By popular vote in cash.....    | 75,550    |
| In cash by individuals.....                    | 1,800     |
| 3rd. Mercer—in cash by individuals.....        | 19,150    |
| 4th. Boyle—in 6 per cent County Bonds.....     | 150,000   |
| In cash by individuals, and town of Danville.. | 90,000    |
| Total.....                                     | \$388,500 |

In addition to the above, the Covington Railroad Company subscribed \$62,000, of which \$12,000 has been paid in cash, and \$10,000 in 6 per cent. Bonds; the balance adjusted in a satisfactory manner.

The subscriptions in Cincinnati, as far as we have been advised, amount to \$68,100, some of which were promptly paid up in full, and the residue as called for, with one or two exceptions.

I have recently proposed to the people of Mercer, to construct a branch to Harrodsburg, the county seat, about four and a half miles distant from our line, towards Danville, if they would raise \$300,000—by county vote and private subscriptions—\$100,000 of which to be specially devoted to the construction of the unfinished Suspension Bridge across the Kentucky river, and the residue in building the road in their direction.

From every indication and information since received, this sum will be had, if I can finish the road to the Bridge before next harvest, inasmuch as they are now paying twenty cents per bushel for hauling wheat on the turnpike to this city, instead of *three*, which would be a reasonable charge by railroad.

*Whether or not I shall be able to do this, will depend entirely on your city.* I cannot hope to raise any more private stock here, inasmuch as this is only one of five similar works to which our city and county have made, and *paid* large subscriptions, and you will remember our whole city population is under ten thousand.

Under the confident hope and expectation that the Cincinnati subscriptions would easily reach \$100,000. I put all the unfinished sections between this place and the river under contract last June, and it is rapidly approaching completion; but my incoming money is now insufficient to pay the monthly estimates, and the contractors and laborers are consequently becoming discontented.—some of the latter have stopped work.

I have also purchased the right of way—

over three-fourths of a mile—through our city, and the graduation, masonry, trestle-work and bridging, will be ready for the iron, up to the Covington depot, early in January.

With another small effort, it seems to me, the remaining 32,000—to make up the \$100,000—could be raised among your property holders and business men, payable in four or five monthly instalments, and with that I can get to the Kentucky river, as promised, by next harvest.

I understand that some of you doubt the success of the great Suspension Bridge across the chasm of the Kentucky river, the towers and anchorage of which are already finished and *paid for*.

All I have to say on that subject is—let such persons visit, as I have done, the stupendous and beautiful structure of a similar character, built by the same engineer—Roebbling—across Niagara—225 feet above the boiling cauldron beneath, and his doubts will vanish.

As to the topography of the country and our means of progress beyond that point, I will say a few words.

The Memphis and Clarksville Railroad is approaching us from the right, the Nashville and McMinnville routes from the centre, and the Knoxville road from the left of the great Southern system of railroads. All of them are anxious to reach us, and some of them will even cross our Southern border, and help us with “material aid” to effect an early junction. We have examined the country beyond Danville, to our Southern border, in several directions, and no obstacles present themselves at all to be compared with those we are now overcoming at and near the Kentucky river. There are no intervening mountains on this side of the Tennessee line, and for sixty miles beyond Danville, out of the eighty-odd in Kentucky, there will not be as much rock excavation to be made as there was on three miles on each side of the Kentucky river. Instead of hard limestone ridges and cliffs to cut through, we come upon a different formation—sandstone, slate, &c., in a few places—the residue earth, gravel and clay.

The counties beyond Danville have assured us of their willingness to go to work with all their might to continue our road through the *third link*, as soon as we are ready to ask them to do so, and at least half a million of dollars in stock may be confidently calculated upon from them, on any line we may adopt, after fair competition is excited.

Thus far *our link* in this great work has been constructed without resorting to large issues of first or second mortgage bonds, or to any other means of credit. With the exception of less than 30,000 in 7 per cent. Bonds, cash received from stock paid in has been our only reliance and *will continue to be*, until we have an income from a *road actually at work*, earning enough to pay accruing interest and expenses. Our floating debt, not specially provided for out of our present resources, may be said to amount to nothing, for it is less than \$2,000.

Under such circumstances will the citizens of Cincinnati allow me to stop in prosecuting a work from which they will gather the *gold*, while all others must content themselves with comparatively dross and cinders?

Yours truly,

LESLIE COMBS, President.



**TENNESSEE RIVER BRIDGE BURNED.**

The Nashville and Chattanooga Railroad Bridge, crossing the Tennessee river, was in part destroyed by fire on Wednesday morning last, just before the break of day. Originating in the upright part of the tower it consumed five spans, some six hundred feet before the few who were present could stay it—supposed to have caught from a spark of the train that passed at 4 o'clock. The watchman passed over the bridge after the crossing of the train, and discovering nothing out of the way, had departed. Five spans only are burned, and those emphatically, not so much as a stray timber being left. The calamity and loss of such a misfortune is truly great, and can be only understood by those whose commercial interests are and will be affected. —*Chattanooga Advertiser.*

**LOUISVILLE AND SANDUSKY RAILROAD.**

The Directory of this great road held a session in Piqua, last week. Of their doings nothing is reported, but we learn that the reports of officers, committees and agents were of the most gratifying character.

The Piqua Register says: "We learn from the President that the work north of this is still progressing—slowly, to be sure, owing to the pressure of the past year, but with a brighter prospect ahead. The Indiana part of the road is getting along rapidly. There can be no doubt but that this road will be built at no distant day. It is a line of too much importance to remain long unfinished; and when made, it will be one of the best roads in the Great West." It certainly speaks favorably of the project and its management that, notwithstanding the distressing state of monetary affairs, as regards railway interests, for the last eighteen months, the Sandusky, Louisville and New Albany Road should be so surely progressing to a completion with the prospect ahead of a glorious future. As an evidence of the strength of the Company, and its way of doing business, it may be mentioned that not one dollar's worth of bonds have been negotiated below par, nor is it the design of the managers to incur any debt for which provision is not perfectly made.

**BELOIT AND MADISON RAILROAD.**—The Chicago Tribune has the following information relative to this road:

John B. Turner, Esq., has resigned the Presidency of this road, and Ex-Governor Farwell, of Wisconsin, has been elected in his place. The same Board of Directors continue in office.

We learn that such arrangements have been made for the prosecution of the work upon this road as will ensure its completion at an early day to Madison.

**SCIOTO VALLEY RAILROAD.**

This slumbering project has been again aroused by the intelligent farmers residing along its proposed line. A large and enthusiastic meeting was recently held at Picketon, another in the northern part of Scioto county, and another was to be held at Waverly on the 22d.

It is said the right of way can be procured at a very low rate.

**DAMAGES RECOVERED FROM THE MACON AND WESTERN RAILROAD.**—In the case of Malinda Winn tried at Macon a few days since, the jury gave \$7,000 damages against the Macon and Western Railroad. The Telegraph relates the circumstances, (already familiar to the public) giving rise to the suit as follows:

The engine coming in collision with a carriage, containing Mrs. Winn with three children, and a negro driver, the consequence was that two of the children and the driver were killed outright—that Mrs. Winn sustained a fracture of the arm—and that the third child, the plaintiff in this case, sustained a very severe fracture of the skull, from the effects of which she has never wholly recovered.

**OFFER FOR A RAILROAD THROUGH JEFFERSON AND WAYNE COUNTIES, ILL.** The Vincennes Gazette says:

At the November election in Illinois, a proposition was voted upon and carried in Jefferson and Wayne counties, in that State, to donate the Swamp Lands within their limits to any company who would construct a railroad across their territory. There are one hundred and forty thousand acres of these lands in Wayne and fifty thousand acres in Jefferson county. Col. R. B. Mason, Chief Engineer of the Illinois Central Railroad, has proposed to form a company for the purpose of building the road and accepting the bonus. —*Vincennes Gaz., Dec. 5.*

**HAMILTON AND TORONTO R. R. CA.**—Trains have commenced running on this road or rather this branch of the Great Western R. R., although the road at last advices (Dec. 5) was not formally opened. The celebration was expected to take place in a few days. Extensive preparations had been made for the festivity.

**MIL. AND MISS. R. R.**—RECEIPTS FOR NOVEMBER.—The receipts on the Mil. and Miss. Railroad for November are a little over \$85,000, against \$55,138 96 for November of last year.

The receipts for the eleven months of 1855 compare with those of 1854 as follows:

|          |       |              |
|----------|-------|--------------|
| 1855     | ..... | \$642,139 44 |
| 1854     | ..... | 435,186 00   |
| Increase | ..... | \$206,953 44 |

The total for 1855 will not be less than 680,000, we think, against a total for 1854 of \$465,051 19—a shewing which few roads in the country, of equal length, can make.

**DEBT OF NORTH CAROLINA.**

The State debt of North Carolina is thus summed up, in the recent message of the Governor of that State to its Legislature:

"The following statement exhibits the public debt of the State, as it appears on the books of the Loan Office, on the 30th day of September, 1855:

| When contracted. | Am't out-standing | When due.        | Rate of int. | Am't of ann. int. |
|------------------|-------------------|------------------|--------------|-------------------|
| Dec., 1794       | \$103,674 03      | At will of State | 3 p ct       | \$3,110 23        |
| 1838             | 26,473 04         | January, 1859,   | 5 p ct       | 1,823 67          |
| 1839             | 1,011 01          | January, 1852,   | 6 p ct       | 60 66             |
| June, 1838       | 768,219 05        | 1860 & 1870,     | 6 p ct       | 46,093 17         |
| 1838             | 927,777 07        | 1858 and 1868,   | 5 p ct       | 46,388 88         |
| Dec., 1853       | 250,000 00        | January, 1871... | 6 p ct       | 15,000 00         |
| 1854             | 200,000 00        | 1875.....        | 6 p ct       | 12,000 00         |
|                  | \$2,287,156 20    |                  |              | \$24,476 61       |

To the above sum of \$2,287,156 23 must be added \$8,000, the amount of State sub-

scription yet to be called for to the Blue Ridge Railroad Company. This will give us, in principal, \$3,087,156 23, and an annual interest of \$172,476 61. If to this is added the sum of \$1,000,000, the amount of bonds of said company to be endorsed by the State, bearing seven per cent. interest, the entire debt of the State may be set down at \$4,087,156 23, with an annual interest of \$242,476 61. When this sum is increased, as it most probably will be, by another million for the completion of the State Capitol, the whole debt will be \$5,087,156 23, with an annual interest of \$302,476 61.

As the gross profits of the Bank for the last year were only \$273,050 92, it is apparent that unless these are already increased for the future, a large portion of this interest must fall on the State Treasury, and be met by an increase of our annual taxes. In view of this exhibit, I think it must be admitted that we have made sufficient progress in the way of getting into debt to justify at least a temporary pause. You will certainly not offend the tax-paying portion of your constituents by declining to embark in any new projects requiring new loans to any considerable amount.

In enumerating the items of the public debt, I have omitted \$1,051,420 09, the amount of surplus fund deposited by act of Congress, because I have no apprehension that the State will ever be called upon to pay it. The public debt, so far as it respects the payment of the interest, is divided into three classes:

1. That, the interest of which is chargeable upon the Bank. This consists of the 5 and 6 per cents of 1838.

2. That portion of the debt, the interest of which is chargeable on the Sinking Fund. It consists of the 3 per cents of 1794, and the 5 per cents of 1838, redeemable in 1859.

3. The new debt, the interest on which is payable out of the current funds of the Treasury, viz: the bonds issued, to provide for the erection of the new State Capitol. The amount issued is \$250,000—interest \$15,000. The bonds issued to provide for the payment of the State subscription to the Blue Ridge Railroad Company. Bonds to the amount of \$200,000 have already been issued, the interest on which will be \$12,000. There must be, during the ensuing year, a further issue of bonds to provide the means for carrying on both these works.

The resources of the State to meet the public debt consist of stock in her various railroads, and the surplus assets of the Bank. The nominal value of these stocks is \$1,542,300; their present value in market is \$771,150.

The surplus means of the State in the Bank, over its liabilities, is \$3,922,320 64.

On reference to the Report of the Comptroller General, it appears that the payments for the year 1855 were \$651,692 93, and the receipts at the Treasury were \$440,142 89."

**Hogs.**—The movement eastward of swine, on foot, which has been taking place from this vicinity, for some months past, still continues. We hear of large sales of fat hogs, during the past week, to be taken east, at prices ranging from \$4 62 to \$5 00. There will be, probably, rather less than the usual number packed here.—*Athens (O.) Messenger.*

Suppose the Marietta Railroad was made to Cincinnati, the price here is \$6 40, where would those hogs go?











**Third St. Stock Exchange.**

36 West Third Street, Cin.,

J. L. HICKMAN &amp; CO.,

Stock and Real Estate

**AUCTIONEERS AND BROKERS,**

Sales Daily, at 12 o'clock A. M.

J. L. HICKMAN & Co., are prepared to make Advances negotiate Loans on Stocks, Bonds, Mortgages, business paper, and other securities.

At Private Sale, a choice variety, of Stocks, Bonds, etc.

**New Railroad Map.**

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

Plain Lithograph,.....\$0.50  
Colored Boundaries,.....0.75  
Backed with muslin and varnished ready for moulding,.....1.50  
Mounted,.....2.00

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers. Railroad Companies wishing a large number to circulate with reports, or to supply their various offices will be allowed a corresponding discount.

Orders addressed to  
T. WRIGHTSON & CO.,  
Publishers R. R. Record,  
167 Walnut St.,  
Cincinnati, Ohio.

**THE SCHENCK****MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**No. 163 GREENWICH STREET,  
NEW-YORK,

KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Up-right Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR

Aug. 9 ly

**SODA WATER APPARATUS!**

**THE ONLY PATENT CAST IRON  
SODA WATER APPARATUS  
IN THE UNITED STATES, ;**

(Patented June 12, 1855.)

**FOR MANUFACTURING SODA WATER!**

Also, every description of Apparatus, either for Drawing or Bottling of Soda Water. Also, the new SELF-TIGHTENING FAUCET, for water or any kind of Liquids, (Patent applied for 1855,) can be made of Brass, Lead, or any other metal, and Silver-Plated. It cannot be left open by carelessness or by children, nor be easily broken. It will out-wear any other Faucet now in use.

Also the new LUBRICATING APPARATUS, (Patent applied for 1855,) for oiling Valves and Cylinders and Throttle Valves of Steam Engines, Locomotives, Steam Pumps, &c. This Apparatus is Transparent, Self-Feeding, and not easily got out of order. It has a Glass Cylinder on the inside of a brass case, which holds the oil, and can be seen at any time when the oil is out. It will do either for Steam Vacuum or Journals. It is the best thing that could be made for Locomotives.

STEAM GAUGES on a new principle, manufactured and sold by

WILLIAM GEE,

Dec. 5, 1855.-ly

68, Fulton Street, New York.

**ALBERT M. SMITH'S  
PATENT PREMIUM RECLINING & SELF-ADJUSTING CAR SEAT**



For a Night and Day High or Low-back Seat, combined in one,

PATENTED AUGUST 21, 1855.

It was awarded two first premiums, a Gold Medal, at the great Fair at the "American Institute," held at N. York, and a Diploma at the State Fair, held at Elmira, N. Y., 1855.

This valuable improvement is adapted and can be applied at a very trifling expense, to the ordinary seat now in use, without impairing its present qualifications as a day seat, and a new seat provided with it, and made in single seats, costs no more than the ordinary seat.

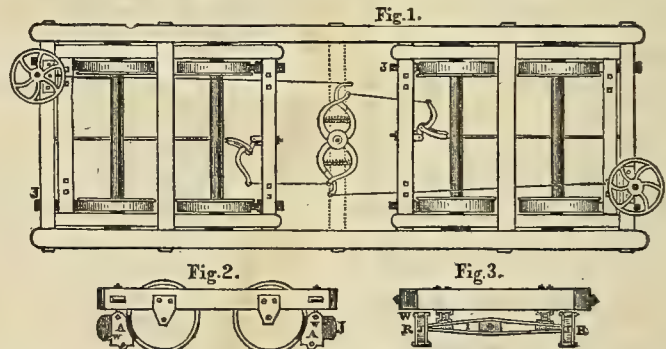
By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects

the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other.

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of **ALBERT M. SMITH, Patentee and Manufacturer,** dec20-ly 13 North St. Paul st., Rochester, N. Y., or **TAULMAN & LOW, 157 Broadway, N. Y.**

**L. PAIGE'S  
IMPROVED CAR BRAKE BLOCKS.**

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R, seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

**Cincinnati, Hamilton, & Dayton R. R.**

SECRETARY'S OFFICE, CINCINNATI, }  
December 1st, 1855.

At a Meeting of the Board of Directors of this Company, held this day, a dividend of 5 per cent. on Stock, was declared out of the net earnings of the road to October 1st, 1855, payable to the Stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York on and after the 15th inst., fractional parts to be paid in cash, at the rate of eighty cents on the dollar, at the option of the Stockholders.

The Transfer Books will be closed for ten days from this date.

Dec. 6-1m

FRANKS. BOND, Secretary.

**Railroad Iron,**

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

D. D. MILLER,

Manufacturer of

LOCOMOTIVE, RAILROAD AND HAND

LANTERNS,

190 Water Street New York.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.**

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,  
and their contents,  
STEAMBOATS, BARGES,  
and their Cargos,**

**Manufacturing Establishments,  
Railroad Depots and Station Houses,**  
at current rates. **L. A. OSTROM,  
Aug. 16. No. 6 West Third Street, Cincinnati.**

**RAILROAD IRON.**

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via, Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY, Quebec & Kingston, Canada.**  
**BERRY & WALKER, Liverpool, England.**  
Kingston, C. W., Sept. 15, 1855.



**T. N. RAFFINGTON,  
GENERAL ENGRAVER,**

North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
**CINCINNATI.**

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,  
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**Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES**  
Engraved in a style unsurpassed.

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**BANK NOTE**

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Also, engraved in a style corresponding in excellence with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,  
BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, &c., &c.**

Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
**GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.**

**MIDDLETON, WALLACE & CO.,**

**LITHOGRAPHERS & ENGRAVERS,**

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**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
Beautifully executed and at moderate rates.

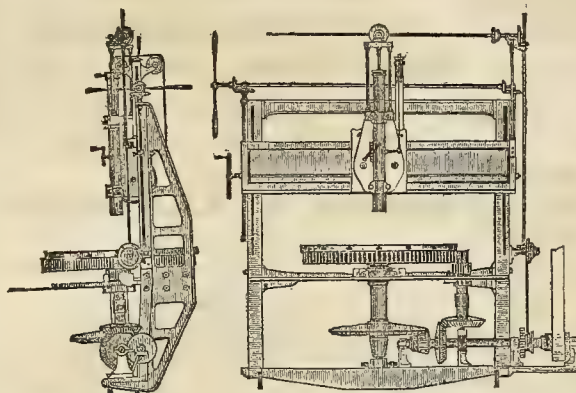
**Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.**

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**NILES' WORKS.**

**FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &c., &c.**

**BANCROFT & SELLERS,**

**16th Street and Pennsylvania Avenue,**

**PHILADELPHIA, PA.,**

**Manufacture, in addition to their well known class of**

**ENGINEERS' & MACHINISTS' TOOLS,  
SHAFTING, GEARING,**

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**BANCROFT'S PATENT SELF-ADJUSTING  
HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad  
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— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**London Agency for Sale of Bonds &c.**

Messrs LANCE & Co., are making more generally known in England, the great advantages of American securities for investment.

During the present year Messrs Lance and Co. have disposed of a large amount of American and Canadian Railway Bonds, and are just extending their connections. They will be happy to correspond with parties having good American Securities for sale.

Messrs LANCE & Co. have had experience in the purchase and shipment of Iron, and offer their cooperation to those about to negotiate for the disposal of Bonds and the purchase of Rails.

P. S. Presidents of Railway Companies are requested to favor Messrs L. & Co. with Exhibits or Reports of their Companies as published.

10, Regent street, Waterloo Place, London,  
October, 1855. nov. 15-6m.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY.

**Alexandria, Va.**

**FOR SALE.**—Six Coal Burning Freight Engines,  
28 tons weight; 10 wheels, 6 drivers and truck  
Two of the Engines now ready for delivery, and four  
in the course of three months. Our Coal Burners are  
used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage)  
Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS,**

**President.**

Also, for sale, two Twenty Horse Power Stationary Engines. Aug. 94t

**Railroad Printing.**

**WE** have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

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Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

**T. WRIGHTSON & CO.,**  
Railroad Record Office, 167 Walnut St. Cinj.



**PERU & INDIANAPOLIS R. R.**

*Peru, Logansport, Wabash, Rochester, and Indianapolis.*

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Frght. Ag't.  
Indianapolis, October 1, 1855.

**THE KENTUCKY MILITARY INSTITUTE.**

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

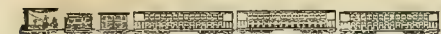
The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY, President of the Board.

fy26 2m

**COLUMBUS, PIQUA, AND INDIANA RAILROAD.**

New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 9.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-tf.

**Terre Haute & Richmond R. R.****Summer Arrangement.**

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 2.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.  
MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.  
May 23, 1855. S. HUESTIS Superintendent.

**1855 FALL ARRANGEMENTS. 1855**

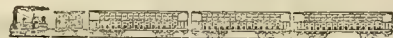
FOR THE

**EAST, NORTH AND WEST.**

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS IN OHIO.

Time as short to the Eastern Cities, as well as to Chicago and St. Louis, and Fare as Low as by any other Routes.

**Great Miami, [C. H. & D.]**

MAD RIVER AND LAKE ERIE,

CLEVELAND & TOLEDO,

AND

**EATON & RICHMOND RAILROADS.**

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

**FIRST TRAIN.**

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo and Chicago. (This train starts by Columbus time, which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

**SECOND TRAIN.**

Indianapolis Express, at 6 A. M., for Indianapolis, and all points North and West.  
(This train also starts by Columbus time.)

**THIRD TRAIN.**

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with steamer Bay City for Detroit; with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua.

**FOURTH TRAIN**

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

**FIFTH TRAIN.**

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

**SIXTH TRAIN.**

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

**SEVENTH TRAIN.**

Hamilton Accommodation at 5.30 P. M.

RETURNING.—Trains leave Dayton as follows: at 4.50 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M.  
LEAVE HAMILTON at 5.54, 6.45 and 9.00 A. M., and 12.30, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Supt. C. H. & D. R. R.  
E. F. OSBORN, Supt. M. R. & L. E. R. R.  
E. B. PHILLIPS, Supt. C. & T. R. R.  
D. M. MORROW, Supt. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

**IRON BOILER FLUES.**

PASCAL IRON WORKS.

**MORRIS, TASKER & MORRIS,**

Manufacturers of

**LAP-WELDED BOILER FLUES,**

1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**

From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,

PHILADELPHIA.

**Cincinnati to Indianapolis,**

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,

AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.20 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50  
" Lafayette.....5 50  
" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM H. SMITH, Conductor.  
feb. 8-ly WnRRopeSute M MterODn ipn

**Myers' Patent Cylindrical Car.**

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

**GEO. D. WINCHELL & BRO.,**

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

**SUCTION & FORCE PUMP**

AND

**Compound Steam Pumping Engine,**

WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.  
SILVER MEDAL. (The highest prize) awarded to these Pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855-ly



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
**Through Tickets from all Parts of the West,**

ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILA-**  
**DELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

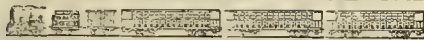
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 84 Baltimore.

**TO LOUISVILLE  
IN SIX HOURS.**

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.  
Omnibuses run from the principal hotels, and call on orders left at the Ticket Offices.

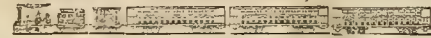
Omnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

**STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of  
**STEREOTYPING,**  
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of  
**Card and Job Type, Cuts, Rules, &c. &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

**AT THE FOUNDRY PRICES.**  
C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

**1855. New Arrangement, 1855****COMMENCING MONDAY, JULY 16.****LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.**

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAI'D WITH HEAVY TIRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy Tiron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the East; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

|                                                |           |
|------------------------------------------------|-----------|
| Time via Little Miami Route from Cincinnati to |           |
| To Columbus in.....                            | 3¾ hours. |
| To Cleveland in.....                           | 8½ "      |
| To Dunkirk in.....                             | 14½ "     |
| To Buffalo in.....                             | 16 "      |
| To Albany in.....                              | 26 "      |
| To New York in.....                            | 30½ "     |
| To Boston in.....                              | 35 "      |
| To Crestline in.....                           | 6 "       |
| To Pittsburgh in.....                          | 14 "      |
| To Philadelphia in.....                        | 30½ "     |
| To Wheeling in.....                            | 10 "      |
| To Baltimore in.....                           | 26½ "     |
| To Washington in.....                          | 29 "      |
| To Steubenville in.....                        | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

**FIVE DAILY TRAINS.**

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops at between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami) Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**Covington and Lexington Railroad.**

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terre Haute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at LEXINGTON at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryansville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.20 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

FREIGHT TRAINS will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

**RATES OF FARE.**

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthiana.....  | 2 00   |

**FOR THROUGH TICKETS**

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent.

The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw. Madison and Scott, Covington.

CLAYTON & GRANT.  
S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road.  
nov.15\*

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.****VIA LAWRENCEBURG.**

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via, Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.  
Office, foot of Main Street, corner of Water Street.

Cincinnati, Nov. 1, 1855. SIDNEY RICE, Agent.

**W. G. ATKINSON,  
Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.**

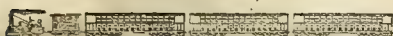
RAILROAD routes located, planned, and estimated Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared.  
mar.14



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
**LOUISVILLE, KY.**



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to  
**OLMSTED, TENNYS & PECK,**  
Louisville, Ky.

Je. 8-17

**Norris' Locomotive Works,**

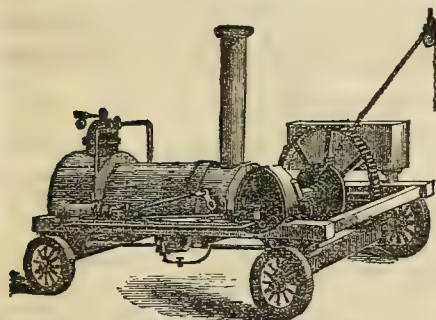
**PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

**A. L. ARCHAMBAULT'S**  
**PORTABLE STEAM**

**HOISTING & PUMPING ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

**A. L. ARCHAMBAULT,**  
S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Guages.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

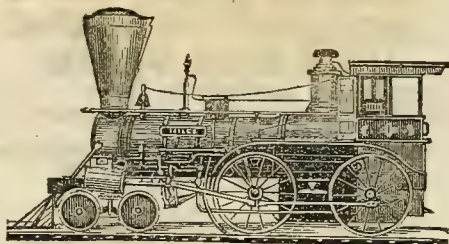
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DURAND, FULTON and TILTON.  
Manufactured by **J. M. BROWN.**

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in

**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONR TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

**WILLIAM SHEKURNE,**

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.**

**T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF  
**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

**THIRD STREET, (next of Burnet House.)**

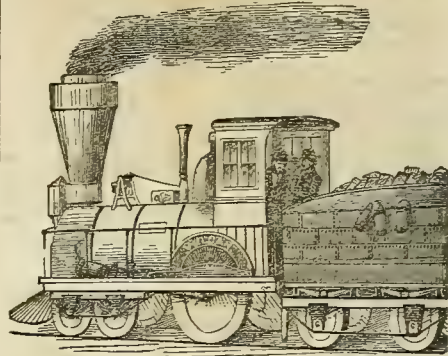
**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gun Packing and Hose, assorted Car Trimmings, Enameled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20 **MOORE & RICHARDSON.**

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,  
**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

**CHARLES WASON,**

Late of the firm of T. & F. Wason, Springfield, Massachusetts.

**Railroad Car Findings**

**BRIDGES & BROTHER,**

**64 Courtlandt Street, New York.**

**Wheels & Axles, Jaws, Boxes, and Casting Fit**

**Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
**Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russia, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

**ALBERT BRIDGES,**

Late Davenport & Bridges, Car Manufacturers.

Cambridgeport, Mass.

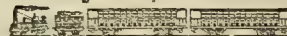
**ALFRED BRIDGES,**

Late Davenport, Bridges & Co., Fitchburg, Mass.

to c6

**CAR MANUFACTORY,**

**Dayton, Ohio.**



**E. THRESHER & CO.,** having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tuyeres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

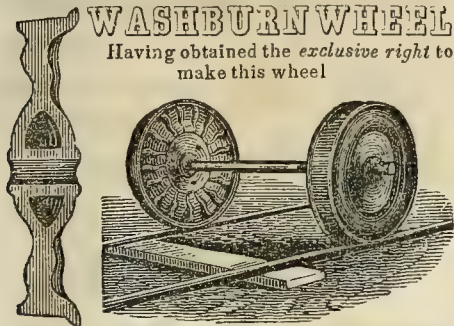
Dayton, Jan 24th. 1855.

Jan. 25-†



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

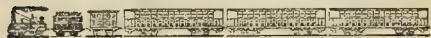


**WASHBURN WHEEL**  
Having obtained the *exclusive right* to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
and Co., Muskingum Works, Zanesville, O.

**J. DAVENPORT . . . M. D. WELLMAN . . . C. M. RUSSELL**  
**DAVENPORT, RUSSELL & CO.,**

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16th

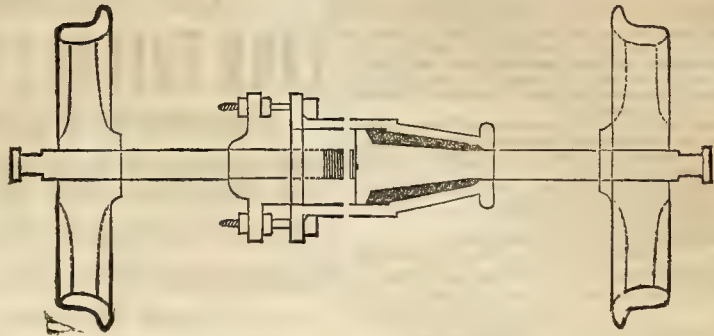
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### S. C. THOMSON & CO.,

MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
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Cor. Railroad Avenue and Market st.,  
No. 124 NEWARK, N. J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, that is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

37101

**SAMUEL L. DENNEY,**

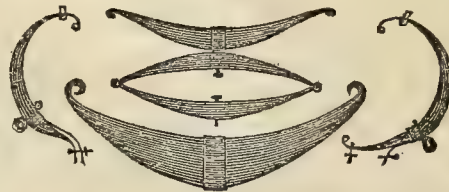
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**

Gap, Pa.

## MCDANIEL & HORNER,

LOCO-  
MOTIVE



AND CAR  
SPRING

## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

**NORRIS BROTHERS, Locomotive Builders, Philad.**

**A. C. GRAY, Prest. New Castle Manuf. Co.**

**U. WELLS, R. R. Car Manuf. Petersburg, Va.**

**I. R. TRIMBLE, Supt. Philad. R.R. Co.**

May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.**

**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**

**THOMAS DOUGHERTY, Master Mach. do.**

**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.**

## DURYEE & FORSYTH'S

PATENT

## PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec27

**HEWSON & HOLMES,**  
53 and 55 Walnut Street.

## THOS. M. CASH,

## PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

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### REFERENCES.

**Richard Norris & Son, Locomotive Builders, Philad'a.**

**Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co.**

**Charles H. Fisher, Esq., do.**

**Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.**

**Pinckney Huger, Esq., Pres't N.E.R.R. Co.**

Oct. 13-1854.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENN'A R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH P. A. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents, TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES,

For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Plates, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length).

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES, For Railway Wheels. Railway Axles and Springs, SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

## FRIED. KRUPP,

Essen Rhenish Prussia.

Represented solely in the United States by

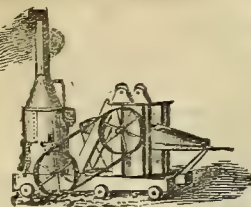
## THOMAS PROSSER & SON,

28

PLATT STREET, New York!

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



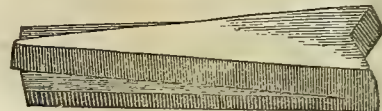
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

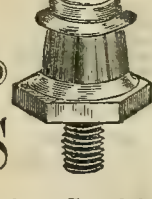
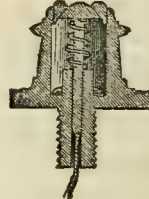
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
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In Sheet or in Pocket Case;

The LARGE SECTIONAL and RAILWAY MAP OF Ohio  
The LARGE MAPS OF CINCINNATI, and HAMILTON Co  
Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
MAPS OF EVERY DESCRIPTION.



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, { Associate Editors.  
T. WRIGHTSON, {

CINCINNATI:

THURSDAY MORNING,.....DECEMBER 27, 1855.

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London, England.

## Railroad Record

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### DAILY PENNSYLVANIAN.

The Daily Pennsylvanian came to us for the 15th in new dress, printed on a double sheet. After Jan. 1st, this will be its regular shape. Its new type is a handsome letter.

### KENTUCKY MILITARY INSTITUTE.

We regret to learn that the main building occupied by this excellent institution was destroyed by fire on the night of Dec. 9. The fire is supposed to have originated from the carelessness of a servant.

VOL. 3.—No. 44.

### SUMMARY OF RAILROADS IN THE UNITED STATES, FOR 1855:—PROGRESS IN THE YEAR.

At the close of 1854, we gave a detailed and circumstantial statement of the railroads of the U. States for that year. We shall now proceed to make the additions for the year 1855—showing what has been done, in the past year—what is the present amount of railroads, in miles, and what roads are in progress. In doing this, it is not necessary to give each road, in detail, but we shall give the aggregates, in each State:

#### OHIO RAILROADS.

In this State no entirely new railroad has been commenced, we believe, in the past year. The work done has been confined, almost entirely to roads then in progress, and to double tracks, on some existing works.—the principal additions to the roads then running here, are the Cin., Wilmington & Zanesville, the Cin. & Marietta, the Steubenville & Indiana, and the Cleveland, Tuscarawas & Zanesville lines. The result is as follows:

|                     | In 1854  | In 1855  | Increase. |
|---------------------|----------|----------|-----------|
| Finished miles..... | 2,204 m. | 2,475 m. | 271 m.    |
| In Progress.....    | 1,074 "  | 1,360 "  | 314 decr. |

It appears that but 271 miles have been added during 1855 to the running roads in Ohio. We have left most of the roads set down as in progress, still in the list, though one half of them are for the present, dormant.

#### INDIANA RAILROADS.

The additions and corrections, from last year's list, gives the following result as compared with this:

|                     | In 1854 | In 1855 | Increase. |
|---------------------|---------|---------|-----------|
| Finished miles..... | 1,388   | 1,629   | 91        |
| In Progress.....    | 1,443   | 1,413   | 30 decr.  |

It will be seen that not a great deal has been done in Indiana. The Northern Indiana Air Line, by Goshen, is nearly finished and the Toledo & Wabash Valley is going on actively. The Evansville & Cleveland line is still in progress. So is the Cin. & Chicago. On the other unfinished lines, but little is doing.

#### ILLINOIS RAILROADS.

The following is the comparison between last year and this:

|                     | 1854  | 1855  | Increase. |
|---------------------|-------|-------|-----------|
| Finished miles..... | 1,807 | 2,247 | 440       |
| In progress.....    | 1,638 | 1,297 | 341 decr. |

It will be seen the increase of finished lines, in Illinois, is very considerable. The completion of the Illinois Central, the Ohio & Mississippi, and the Chicago & Milwaukee, constitutes the main part of the work done in Illinois during the past year.

#### MICHIGAN RAILROADS.

Michigan is, in no way, remarkable for railroads. The following is the comparison between last year and this:

|                     | 1854 | 1855 | Increase. |
|---------------------|------|------|-----------|
| Finished miles..... | 434  | 524  | 90        |
| In progress.....    | —    | 46   | 46        |

The only thing done of consequence, in

Michigan, is the completion of a part of the Detroit & Milwaukee line.

#### WISCONSIN RAILROADS.

There is a very active spirit of railroad making awake in Wis., and a few years only, will elapse, before that State will be as well provided, with the means of locomotion as any other State in the country.

|                     | 1854 | 1855 | Increase. |
|---------------------|------|------|-----------|
| Finished miles..... | 173  | 337  | 164       |
| In progress.....    | 396  | 336  | 60 decr.  |

The completion of parts of the La Cross & Milwaukee; of the Milwaukee & Mississippi, and of the Milwaukee & Watertown roads, makes the chief part of what has been done in Wisconsin.

#### IOWA, MISSOURI AND ARKANSAS.

We class these together, because west of the Mississippi and contiguous to one another. Not a great deal has been done in these States the past year; but there is a vast field for railway enterprise there, and numerous roads planned and practically put under way.

|                     | 1854   | 1855   | Increase. |
|---------------------|--------|--------|-----------|
| Finished miles..... | 60     | 152    | 92        |
| In progress.....    | 2,288½ | 2,196½ | 92 decr.  |

The first road in Iowa has been partially completed from Davenport to Muscatine.—The continuation of the Pacific road to Jefferson City (Mo.), was signalized by the terrible catastrophe at Gasconade Bridge.

#### RAILROADS IN THE SOUTH-WEST, INCLUDING KENTUCKY, TENNESSEE, ALABAMA, MISSISSIPPI, LOUISIANA AND TEXAS.

The comparative table in these six States, for last year and this, stands as follows:

|                     | 1854   | 1855  | Increase.  |
|---------------------|--------|-------|------------|
| Finished miles..... | 979    | 1,420 | 441        |
| In progress.....    | 3,929½ | 3,773 | 156½ decr. |

The completion of 100 miles of the Mobile & Ohio Railroad, of a portion of the N. Orleans & Opelousas, are the main features of last year's operations in the south-west. The Tennessee Railroads, by virtue of State aid, are progressing pretty well. The others in the south-west are quite dormant.

#### RAILROADS OF THE SOUTHERN ATLANTIC—MARYLAND, VIRGINIA, NORTH AND SOUTH CAROLINA, GEORGIA AND FLORIDA.

The comparative table, for these States, is as follows:

|                     | 1854  | 1855  | Increase. |
|---------------------|-------|-------|-----------|
| Finished miles..... | 3,456 | 3,702 | 246       |
| In progress.....    | 2,201 | 2,143 | 58 decr.  |

The most important roads now making in the south are the Blue Ridge, to connect Charleston with Knoxville; the Virginia & East Tennessee; the Virginia Central, and the Covington & Ohio.

#### RAILROADS IN THE MIDDLE STATES—NEW YORK, NEW JERSEY, PENNSYLVANIA, AND DELAWARE.

The comparative table, for these States, stands thus:

|                     | 1854  | 1855  | Increase. |
|---------------------|-------|-------|-----------|
| Finished miles..... | 4,195 | 4,469 | 274       |
| In progress.....    | 1,736 | 1,474 | 262 decr. |

It will be seen that in the Central States very little has been done, we will remark, for these as for other States, that we have put



down in the list, all lines as *in progress*, upon which *work has been done*; although for the time being suspended. True, we know of lines *commenced*, which are not likely at some *future* time to be finished; and, therefore, may fairly be said to be in progress.

#### RAILROADS OF NEW ENGLAND.

The table stands thus:

|                     | 1854  | 1855  | Increase. |
|---------------------|-------|-------|-----------|
| Finished miles..... | 3,117 | 3,465 | 298       |
| In progress.....    | 341   | 79    | 262 decr. |

A good many miles of Railroad have been finished in New England, which are *branches* and small parts of roads; but, which, in the aggregate, as seen above, make considerable addition to the old stock.

#### SUMMARY OF RAILROADS, COMPLETED AND IN PROGRESS AT THE CLOSE OF 1855.

|                                 | M. fin. | M. in prog. |
|---------------------------------|---------|-------------|
| Railroads of Ohio.....          | 2,475   | 1,360       |
| “ Indiana.....                  | 1,529   | 1,567       |
| “ Illinois.....                 | 2,247   | 1,397       |
| “ Michigan.....                 | 654     | 46          |
| “ Wisconsin.....                | 337     | 336         |
| “ Mo., Ark. and Iowa.....       | 152     | 2,196½      |
| “ the South-west.....           | 1,430   | 3,773       |
| “ the Southern Atlantic.....    | 3,762   | 2,143       |
| “ the Northern Mid. States..... | 4,469   | 1,474       |
| “ New England.....              | 3,465   | 79          |
| Aggregate in 1855.....          | 20,260  | 14,071½     |
| “ 1854.....                     | 17,813  | 14,989      |

Change—Increase..... 2,447 dec. 917½

It will be observed, that notwithstanding all the embarrassments and difficulties of the past year, in regard to railroads, there has actually been made *two thousand four hundred and forty-seven* miles of railway.

We have heretofore assumed, as a basis of calculation, that *three thousand* miles of railroad would be made annually, and taking two years together, it is a correct estimate. Such a year of railroad difficulties, as the last, will be rarely met with. Last year several eastern publications (the *Merchants' Magazine* for one), published summaries of railroads—putting the amount far beyond the mark. This was done by putting down as *completed* many of the unfinished roads. The summary, we give above, is as accurate as our means of information will permit.

#### BALTIMORE AND OHIO R. R.—RESIGNATION OF MR. DONE.

The Baltimore *Sun* in announcing the departure of John H. Done Esq., from this road says:

The resignation of John H. Done, Esq., late master of transportation, was tendered early in November to take effect on the 30th of that month. The reluctance of the company to part with him, however, induced him to remain until the late meeting of the board of directors, when his resignation was finally accepted, his engagement with the Illinois Central Railroad, as its general superintendent being absolute. We need not say that the regret, of the Baltimore and Ohio Company at Mr. Done's withdrawal is largely shared by the great business community with whom the transportation master's functions bring him in such extended intercourse. In

the comparatively short period that he has been connected with its affairs Mr. Done has rendered valuable service to the company and has won a high rank among the first railway managers in the country. We have already notice that the board has ordered the preparation of some testimonial of thanks for his efficient conduct in their service.

At the same time that Mr. Done's resignation was accepted, the President of the company nominated as his successor Dr. William T. Woodside, for a long time connected with its affairs, in positions of honor and responsibility. For several years, from 1844 to 1849, we believe, Dr. Woodside was the sole head of the transportation affairs, and from that period to this has acted as the paymaster general to the standing army of nearly five thousand men, rank and file, to be settled with each month. Dr. Woodside has been esteemed as an intelligent and diligent officer. He is said to be systematic and prompt, and a rigid adherent to discipline.

Mr. Wm. Prescott Smith still retains his position as the Assistant Master of transportation, and Mr. Louis M. Cole continues as Auditor and General Ticket Agent, both enjoying the reputation of faithful and competent officers. An extension of the organization is said to be in contemplation, by which the General Freight Officer will be introduced similar to the division of labor as arranged upon other leading transportation lines.

Dr. Woodside assumes his office at a very important period in the affairs of the company. At this time, as we are told, the utmost abilities of the road are taxed by the enormous quantity of freight offering from the great west. The average loading this month at Wheeling for through freight, per day, is one hundred cars with eight hundred tons of produce, besides some fifteen or twenty cars of live-stock. In order to facilitate its transit, the President has lately directed that the use of the Kingwood Tunnell, (the formerly dangerous parts of which have now been finally and firmly arched and secured,) shall be resumed for the passage of the freight trains.

#### DEEP SEA SOUNDINGS.

The following interesting accounts of the results of deep sea-soundings, in the north Pacific ocean, taken from a letter from the north Pacific Exploring Expedition recently arrived at San Francisco. A full description of “Brooke's Lead” may be found in “Maury's Physical Geography of the Sea,” page 207:

When off the coast of Kamtschatka, with Maury's line and Brooke's lead, bottom was obtained from a depth of 1,700 fathoms. The specimen was immediately put under a microscope of 500 linear, and there were seen infusoria, that were probably alive before being relieved of the enormous pressure at

that depth. Many of them were fresh and clear, with the central brown discoloration, which indicates the animate, or recently animate condition of the vital organs.

A doubt was expressed as to their coming from the bottom of the sea. It was said that they came from the water through which the instrument passed on the way up. Fortunately the contrivance by which the specimens were received, though very simple possessed the advantage of taking up the sediment and preserving it intact. The bands of four goose quills, open at both extremities, were inserted in the end of the iron rod which pierces the bottom; a small valve permitted the water to flow through them as they went down but it closed as they came up. These quills were found to be packed with the tenacious sediment in apparently the same condition in which it was when forced into them. One was taken, wiped perfectly dry, cut open and the middle portion, plastic and adhesive as clay ready for the potter, was taken out and examined—the infusoria presented the same appearance of vitality.

In order that microscopists of eminence may have reliable grounds upon which to base their opinions, as to the living condition of these infusoria at the time of their capture, the quill bands were corked at each end, and at the suggestion of a naturalist, put in vials of alcohol, and very soon every thing relating to the matter will be forwarded to the United States, and the originator of this great system of oceanic sounding will have a new link, with which to strengthen the great chain of facts, which have, by his power of generalization, been rendered subservient to commerce and science. Specimens from 2,700 fathoms have also been obtained, but, at that time the contrivance of goose quills had not been applied.

#### GIFTS FOR THE NEW YEAR.

We know of no investment that would *re-pay* our railroad companies better than to present each of their engineers or conductors with a suitable railroad timepiece—a watch that will keep equally as well in the train as standing still. Apart from the consideration of saving human life which is one of the highest importance, the saving in damaged cars and engines alone would amply compensate for twice the necessary expenditure.—One locomotive is necessary to about every three miles of railroad. Take now a road 300 miles long. There will be needed on this road 100 engines and 100 engineers.—A watch suitable for the use of engineers will cost about \$120. One hundred of these watches will cost \$12,000, a sum much less than is frequently lost in a single accident in the shape of a damaged locomotive and two or three cars.

But beyond this a good watch will be reliable at least 10 years under all the hard



usage of constant railroad service. Instead then of an annual cost of \$12,000 we should have an annual cost of but \$1,200 a sum so paltry, that compared with the benefits to be derived, it is not worth a moments thought.

And when we consider the terrible aggregate of human life lost every year, small as it is compared with that mass of living tide that ebbs and flows across our land and that will continue to ebb and flow in greater waves as long as time shall last, and then remember that a large proportion of this fearful loss is occasioned by a lack of suitable time-keepers in the hands of engineers and conductors, the wonder will be that public opinion has not long ago forced a measure of such vital importance upon every company.

But a word in reply to the objection on the score of cost. It will be urged that the road which commence giving watches to its engineers, would be frequently imposed upon. Men would seek employment there long enough to obtain the watch, and then go elsewhere. The answer to this is—let a suitable guarantee be required that the watch shall be surrendered if the engineer leaves the road before 10 years are expired. After that period let the watch be his own. The effect of such a course would be to destroy the system of changing places which now prevails to too great an extent. It would be an object for an engineer to remain 10 years in one situation and such a thing would not then, as now, be an unusual occurrence. It would give our railroads an effective force of steady and reliable men—men accustomed to their business, familiar with their roads, and whose interest it would be to retain their situations. The facility with which a road may be operated with such a force, must be well known to ever superintendent. The safety that would be gained to the traveller is already known to the public.

#### LLOYD'S STEAMBOAT DIRECTORY.

Every few days we find some such paragraph as the following in respectable journals in various parts of the country:

**TONNAGE IN THE WESTERN WATERS.**—We are indebted to the publishers *Lloyd's Steamboat Directory* for the following valuable information. It forms only a single item of the usual matter with which the Directory will abound:

|                                       | No. | Tonnage. | Cost.        |
|---------------------------------------|-----|----------|--------------|
| Number of boats on the Western rivers | 816 | 326,443  | \$19,240,000 |
| Number lighters on do                 | 498 | 116,320  | 149,126      |
| “ steamers on lakes                   | 120 | 68,400   |              |
| “ propellers on do                    | 118 | 41,000   |              |
| “ barks do                            | 40  | 14,221   |              |
| “ brigs do                            | 211 | 51,212   |              |
| “ schooners do                        | 608 | 148,120  |              |
| “ s'ps & scows do                     | 190 | 111,140  |              |
| Total tonnage                         |     | 877,355  |              |
| Costing                               |     |          | \$16,198,421 |

Amounting in the aggregate to \$35,597,547

The above is from the *State of Maine* published at Portland Me. But this is not all.—

Every few days we receive visits from strangers who on entering our office ask if this is the office of T. Wrightson & Co., and upon receiving an affirmative answer produce the circular of “*Lloyd's forthcoming Directory*” and demand of us a copy of the work or a refunding of their money. At first we thought but little of this as we can soon explain that we never knew anything of “*Lloyd's forthcoming Directory*” except to tell some person, months ago, what our charge for printing such a work would be. The work itself we never saw but would be very glad if some of the editors who are publishing these valuable items of information from the *forthcoming* book would advise us when and from whence it will be *forthcoming*. We should be glad to be able to satisfy the inquiries of those who paid their money for it long ago, no doubt to the same parties who are furnishing valuable little items of steamboat statistics and collecting valuable little sums of money all over the country.

**ILLINOIS AND MICHIGAN CANAL.**—The following is a table of receipts of tolls on the Illinois and Michigan Canal, at the Chicago office for the year 1854 and 1855. to the 1st of November:

|                | 1854        | 1855        |
|----------------|-------------|-------------|
| March.....     | \$ 4,217 08 | not open.   |
| April.....     | 8,288 51    | \$ 9,605 47 |
| May.....       | 15,001 28   | 11,949 31   |
| June.....      | 8,633 77    | 15,417 46   |
| July.....      | 13,299 56   | 14,732 24   |
| August.....    | 10,034 61   | 10,618 67   |
| September..... | 6,914 22    | 9,679 41    |
| October.....   | 7,760 69    | 10,934 78   |
|                | \$75,149 62 | \$82,926 70 |

The canal did not open the present year till the 3d day of April; while last year it opened on the 16th of March and closed on the 3d of December.

#### NIGHT AND DAY SEATS.

No one who has ever traveled a night in a railroad car, is insensible to the comfort of a suitable night seat. It is of course impossible in a train to give every one a lounge or a bed, but the next best thing that can be done is to provide a seat, such that it gives the body an easy position and affords a comfortable support for the head. When that is done, a comfortable *night seat* has been provided. The objection to the night seats thus far used, has been that they occupy too much room, are really uncomfortable, and are suitable for only night seats. Any one of these objections is of sufficient importance to prevent their adoption.

Our object, in alluding to this subject, was to notice the recent invention of Mr. ALBERT M. SMITH, of Rochester, N. Y. Mr. Smith's patent consists in so hanging the back of an ordinary seat that it can be reversed, throwing it higher and giving to the reverse side the shape that is most comfortable for a reclining seat. At the same time that the back is reversed the seat slides forward and up-

ward thus accommodating the whole seat to the changed position of the personage. The patentee claims for it, that it is the most comfortable, simple and economical seat yet invented. As far as economy goes the price at which he furnishes the seats is a sufficient guaranty. And as for comfort, the proof is in the practical operation. We have never ridden in a car fitted with these seats, but it would be an easy matter for any road to fit up a portion of a car with these seats and test them thoroughly.

#### MEMORIAL FOR A PACIFIC R. R.

General attention seems to be directed to this all important subject. On Monday night of last week, the Philadelphia Board of Trade resolved to forward to Congress a memorial, signed by the officers of the Board, asking an appropriation to establish a Post road through the public domain, from the western line of Missouri to the eastern line of California, or on such other route as may be deemed most eligible, with the requisite water and military stations. A copy of the same memorial was also ordered to be prepared, to be signed by the citizens of Philadelphia, and a third for transmission to the Board of Trade of St. Louis.

A railroad to the Pacific, on our own territory, is one of the greatest wants of our country, at this present moment, and one which will be felt more and more, as our country grows in wealth and population. The universal expression of the people is, give us a railroad to the Pacific. Congress must, and we believe will, ere long, yield to the expressed wishes of the whole country.

#### OHIO & MISS. R. R.—WESTERN DIVISION.

We learn from the *St. Louis Intelligencer*, that the west end of the *St. Louis* road has been sold to *Page & Bacon* for \$10,000.—This is certainly dog cheap; but, as the road owed *Page & Bacon* a million of dollars, it was little matter what it was bid off for.—There is one question about this, yet to be tested. What did *Page & Bacon* buy? Did they buy the Corporation—the public rights and franchises of the road? We presume no lawyer will assert this. Franchises given by the legislature, for the public, are not saleable. If the entire franchises of the road were not sold (as it is evident they could not be), there must be a residuary interest, in the stockholders. Disguise this matter, as may be, it is impossible to conceal the fact, that the stockholders of a railroad, have some rights, reserved to them by the act of the legislature, creating a corporation, for the public benefit, which cannot be taken away from them, and which it would be well for them to consider before they throw away their rights.



## Railroads.

### INTERNAL IMPROVEMENTS IN GEORGIA—GOVERNOR'S MESSAGE.

Georgia has taken the lead in Internal Improvements among the southern States, and is now reaping the advantages of the forethought. The Governor, in his message, a portion of which we copy, below, implies that the State has already done enough, and recommends, for the future, a cautious system of legislation—a judicious discrimination in the projects to be countenanced, and the encouragement of private enterprise and self-reliance. In his message he says:

If we look to the geographical position of the State, it is not singular that she has taken the lead of our Southern sisters, in works of Internal Improvement. She occupies the gap between the Southern spur of the Allegheny mountains and the Atlantic, and is, therefore, the portal through which the travel and products of the great valleys of the West must find their transit to the "highway of nations." Such a position fixes upon her a heavy, but glorious responsibility, involving a mission for the future, worthy the most comprehensive grasp of enlightened statesmanship. On the other hand, her varied and inexhaustible Mineral and Agricultural resources afford a perpetual stimulus, and prompt to constant efforts to secure the means of their development. These considerations create a two-fold obligation upon the Legislature; the one, to adjacent States—the other, to her own vast internal interests.—Hence, to comprehend fully their legitimate scope of action, the Legislature should assume a lofty stand-point from which they can survey the whole field. Holding in her hand the key which opens the Atlantic to the West, the State should so use her power, as to force, by a compulsion mutually advantageous, the travel and produce which seek the ship, to become tributary to her own wealth, prosperity and greatness. Looking to this, as the light to guide her general policy, she should likewise, as the proximate motive of action, keep in view the development of her natural resources, and the advancement of the people in all the elements of the highest and best civilization. Hence, the paramount necessity of well defined and well regulated system, in our scheme of Internal Improvements. It does not follow, that a charter for a railroad must be granted, as a matter of course, when asked. An enlightened legislature comprehending fully the system, its design, and what is best calculated to advance the general welfare, will inquire whether the charter asked, is in harmony with that system, what will be the bearings of its connections without the State, what its effect in developing our resources, and what its relation to other works under which large interests have become, or are likely to become, involved and vested?—The system in Georgia, though in its infancy, is yet sufficiently advanced to indicate the ultimate shape which it is likely to assume.—On her eastern border she has three points, which have formed and are seeking to form connexions with the various sections, internal and external, whose productions will foster their growth and prosperity. These points are Augusta, Savannah and Brunswick. The two former are connected, by roads completed, with Tennessee and Alabama; and

the latter possessing a harbor unsurpassed by any on the Atlantic coast, south of the Chesapeake, and flanked by an extensive territory, covered by the best pine field in the world, and of wonderful agricultural fertility, seeks a connection with the vast region that skirts the Gulf of Mexico. In a word, these three cities form the basis of our system, and the lines through the State which connect, or propose to connect them, with her own great divisions, within, and exhaustless feeders without, constitute its frame work or skeleton. Its symmetrical completion should both define and limit the policy of legislative action. It will be most speedily accomplished by private capital aided by the loan of State credit. Such charters, and such only, as may be required for necessary intermediate connections and facilities, should be granted, to fill out the system; and these should be constructed by unaided private capital.—But to complete the skeleton of the system, so as to extend an arm into each of the grand geographical sections or divisions of the State, she may with propriety and wisdom, lend her credit, under securities and guaranties, which will place her beyond the contingency of ultimate liability and loss. To that extent the Legislature may go, but to that extent only should it go, and with well considered caution and well guarded prudence.

The direct appropriation of money or subscription for stock by the State, to aid in the construction of railroads, is considered to be unwise and inexpedient. Its tendency is to emasculate private enterprise, by removing the necessity of self-reliance. It will complicate the State with individual interests, which experience teaches to be dangerous to the public welfare. It will increase the State debt, and consequently create a necessity for burdensome taxation.

The construction of the Western & Atlantic Railroad, by the State, is regarded, both as a precedent and an argument in favor of direct appropriations in aid of Internal Improvements. But it ceases to be forcible, in either point of view, when we consider the circumstances which prompted that magnificent project. At that time, there was not a railroad in Georgia. Private capital refused to be thus invested, because experiment had not shown either the practicability or profitability of such works. Besides, the region which it penetrates, though abounding in agricultural and mineral fertility, is mountainous and difficult of access. It was socially and physically severed from the lower region of the State and advantageous markets for the products of its industry. On the one hand, railroad enterprise needed the stimulus of the example; and on the other, the North-west was incapable of development by private capital. Hence, the State embarked in the enterprise; and if no other advantage shall ever be realized, the enhanced value of the lands of Cherokee Georgia amply remunerates the State for the outlay, and vindicates the far-sighted wisdom of its projectors. The justification of the State was the necessity of the case; but where the necessity does not exist, the reason for the policy does not obtain.

But, viewed in another light, the building of the Western & Atlantic Railroad by the State does furnish a sound reason why other sections may ask with propriety her fostering aid, in the form of a loan of her credit.—That work cost not less than \$5,000,000. The region through which it runs was then very sparsely populated and consequently contributed a comparatively small portion of the

expense of its construction. Middle and Southern Georgia bore the tax; they bore it generously and patriotically. It is, therefore, not arrogant or unreasonable to ask, in return, such aid from the State, as will develop other sections and bring them within reach of advantageous markets. The request would come with the force of an appeal to the magnanimity of those who are the special beneficiaries of this large State beneficence, to practice the spirit of enlightened reciprocity.

There are those whose patriotism and intelligence are entitled to great respect, who earnestly advocate the policy of the State aiding works of Internal Improvement, by issuing her Bonds for a sufficient amount, per mile to purchase the rails, to all railroad companies which shall have completed the grading, &c., of their respective roads, and made them ready for laying the superstructure.—But I regard it as wild and hazardous, and the adoption of such a measure, as the worst calamity that could be inflicted upon the State. If their could possibly be any necessities which would justify it, they certainly do not exist in Georgia. Railroad enterprise with us, does not need stimulation, but rather wholesome and judicious direction. Such a system as that, however, would multiply those works—or attempts to construct them indefinitely, and the sequel would be a crushing State debt, impaired State credit, ruinous depreciation of State Stocks and general paralysis in all the departments of business and labor. States, like individuals, will retard their progress, if they endeavor to advance too rapidly. A system of Internal Improvements should be rather a growth, developed and gradually matured by the action of the laws of social and commercial progress, than the artificial result of restless, impatient, and ill-guided, but well meant legislation. Let us shun both Sylla and Charibdis and move cautiously through the straits between the two extremes.

### RAILROADS OF VIRGINIA—STATE AID—GOVERNOR'S MESSAGE.

We make a few extracts from the message of the Governor of Virginia, to its legislature, for the purpose of showing the line of policy which he recommends in regard to Internal Improvements. Virginia now is a State of far different standing in the confederation from Virginia fifty years ago. A large portion of this loss of standing is unquestionably owing to the fact that she has allowed others to outstrip her in the march of improvement. And it is only by pursuing an enlightened and systematic course of Internal Improvement that the "Old Dominion" may expect to regain her standing and importance:

In my first communication to the legislature, in 1851, I took the liberty to present to their consideration the skeleton of a system of Internal Improvement, for the State, somewhat general in its character, but which it was confidently believed, would, when carried out in detail, redound alike to the advantage of every portion of the commonwealth, render her the great thoroughfare for the commerce of the teeming west, occupying as she does a commercial position equal to any part of the continent, and secure for her the elevation designed by manifest destiny. The system thus recommended, I am happy to



state, met the approbation of that legislature and was to a great extent adopted, appropriations having been made for the construction of all the improvements recommended so far as it was deemed prudent to apply the public means at that time. Among the first thus recommended, and probably the most important, was that of the Covington and Ohio Railroad, an enterprise which, in point of magnificence, grandeur and prospective pecuniary profit is equal if not superior to any that has ever been presented for the consideration of the legislature. The liberal appropriations made to this road at the succeeding session, which met the hearty approval of the entire State, was an earnest of the fixed purpose of the representatives of the people to construct without further delay, this important work. The amount appropriated having been judiciously expended chiefly on heavy portions of the work; and much of the residue being under contract, it might be deemed an act of supererogation in me to attempt an argument to prove the great benefit which must inevitably result to the State from the speedy completion of this enterprise, and yet I regret to say, there are rumors of an organized opposition, calculated to prejudice the public mind, and probably endanger the consummation of the scheme. The necessity for some such work passing through the center of the State, and connecting the east and west together, has attracted the attention of the sages and statesmen of Virginia for more than three-quarters of a century. Washington, Jefferson and Marshall, expatiated on the advantages to result from it in connection with other improvements farther westward, and scanning the vista of the future; foretold with prophetic accuracy its accomplishment, by this identical route at no distant day. It is true they saw it dimly, as belonging to the future, yet they saw the immeasurable length and breadth of the productive and almost interminable west. They saw the bosom of her majestic rivers and expanded lakes covered with the rich product of her fertile soil, seeking an outlet and transit to different marts of the world. They measured and compared distances, and found a harbor on the Chesapeake bay nearer the great western garner than any other point on the Atlantic. They saw and compared the genial climate and depressed mountains of Virginia with the towering heights of the ice-bound Alleghenies upon the more northern routes, and doubtless perceived, in anticipation, the ports on the Chesapeake bay become the point of departure across the Atlantic; our ships, the vehicles of transportation, and our citizens, the recipients of large profits derived from freight, duties, tonnage, &c. All these brilliant prospects were in the imagination of these far-seeing statesmen—the true fathers of the country—and form a part of the rich legacy and valuable counsel bequeathed to us by them, which, if observed, and carried into practical operation, cannot fail to conduct us in the path that leads to prosperity and happiness.

If it be true that the interest of Virginia called for the construction of this thoroughfare half a century ago, and the distinguished statesmen of that day recommended the appropriation of adequate means for its accomplishment—if at that early day a glance at the map proved beyond controversy that this route was designed by nature to become the channel through which the trade and travel of the south and west would necessarily be

forced—what reason can be assigned or apology offered, after a delay of fifty years, for the objections and obstacles thrown in the way at the present day. If the interest of our people required this improvement in 1800, when the combined population of Norfolk, Richmond and Petersburg, the three largest cities in the State, was less than 17,000, and the revenue of the State less than half a million, how must the demand have augmented now, when the population of those cities have increased to 70,000, and the revenue to two and a half millions! If called for when Mississippi, Illinois, Indiana, Louisiana, Missouri, Arkansas, Michigan, Wisconsin and Iowa had scarcely emerged from their primeval state, what must be the comparative demand now, when the above named States have become the most productive in the Union? In six of these States, including the western portions of Virginia and Pennsylvania, there was raised in 1849 within a fraction of three hundred and fifty millions of bushels of corn.—and according to the ratio of increase during the last years, we may safely estimate the crop of 1860, within the above region, at five hundred and fifty millions of bushels, which is about two-thirds of the entire quantity raised in the United States. Of this enormous crop, it is fair to suppose that one hundred and fifty millions can be spared for exportation, and will seek a transit through the several thoroughfares terminating on the seaboard, provided the foreign demand shall justify such exportation. And in order to determine how far we should rely upon such demand, let us examine for a moment what can be gathered from an estimate of trade in that article for seven years past. By reference to statistics, believed to be reliable, it will be found that the exports of corn and corn meal from this country, at different periods have been as follows:

|              |                  |
|--------------|------------------|
| In 1837..... | 951,276 bushels. |
| 1846.....    | 3,326,068 "      |
| 1849.....    | 15,283,854 "     |
| 1850.....    | 7,292,302 "      |
| 1851.....    | 4,444,921 "      |
| 1854.....    | 20,000,000 "     |

The above statement shows conclusively that the foreign demand is rapidly increasing, and that notwithstanding the falling off immediately after the famine in a portion of Europe, the exports for the year 1854 amounted to 20,000,000 bushels, establishing the fact that it is the cheapest and best bread within their reach, and that its use, at no distant day, will extend throughout all western Europe. In that country it is not grown except to a limited extent. Consequently, the supply must be from the United States, and destined to form a staple article equal if not exceeding that of cotton in amount.

I have said nothing of the extensive production of wheat, oats, hemp, and tobacco, all of which admit of transportation, and yield a fair profit to the producer. The census of 1850 shows that the region of country above named, produced upwards of fifty millions of bushels of wheat in 1849, and that Kentucky alone exported fifty-five millions of pounds of tobacco. This immense and almost incalculable amount of trade must find its way to a foreign market through some of the great leading thoroughfares now in operation or in progress of construction. The next inquiry is, can Virginia compete successfully for this trade and travel? The ready answer is, yes. Her Atlantic ports are nearer the center of these western and southwestern granaries than any other on the coast; her roads of easier grade; her climate more genial, and the

scenery more picturesque and inviting, while her ports and harbors are more spacious and safe, and the egress to the ocean more convenient and direct than from any other that could compete with her.

It is a self-evident proposition that the productions of a country, intended for market, will be conveyed by the cheapest and most direct line; and as the communication with the European markets will be shorter through the ports of Virginia than any other, it is but reasonable to infer that the trade of the south and the west, will necessarily pass through this channel when these improvements shall have been completed. And yet, for want of them, the census of 1850 shows that there was received during that year in the city of New York, from the Western States, 984,434 barrels of flour, 3,344,647 bushels of wheat, 2,608,967 bushels of corn, 146,836 barrels of provisions, besides the corresponding quantity of ashes, stores, wool, butter, cheese, lard, &c., a large portion of which is forced upon a route more than 160 miles longer than that terminating on the capes of the Chesapeake and much of which must of necessity return by way of the capes in its regular transit to a foreign market, being a palpable innovation upon the established rules of traffic, and the end and object of which is gain to the operator.

The foregoing statistics have reference to the section of country bordering on and northwest of the Ohio river; but it should be remembered that at the mouth of the mouth of the Big Sandy river, Virginia shakes hands with her daughter Kentucky, who has long been importuning her tardy old mother for permission to pass her rich treasures through the ancestral domain to the Chesapeake, and from thence by direct transit, to the different marts of the world. Kentucky proposes also to make common cause with Virginia in the completion of improvements now in progress, by which a direct communication will be formed between Norfolk, Petersburg, Richmond, Fredricksburg and Alexandria, in Virginia, and Maysville, Lexington and Louisville, in her own State, and extending from thence, by the way of Memphis on the Mississippi river, to the distant southwest—a road upon which the southern man may pass with his property in safety free from the taunts, jeers, insults and robberies of northern abolitionists. But, why dwell on this subject, when the action of the last legislature, harmonising with public sentiment, has placed the completion of our leading lines of improvement beyond the contingencies of a doubt, the most of them being under contract, and large sums of money having been expended in their construction, which in the event of their abandonment, would result in a total loss to the State.

The system in progress is equally magnificent in plan and importance; and when completed, in connection with foreign cities and depots, will impart renewed vigor and activity to all branches of business, greatly enhance the value of our hands, build up our cities and make Virginia conspicuous among the most flourishing in the category of the States.

The Central Railroad, which is but the prolongation eastward of the Covington and Ohio road, is in a state of forwardness, and will doubtless be completed within the period prescribed for finishing the Covington road. The same may be said in reference to the Richmond and York river road, the



last connecting link between the great west and the capes of Virginia.

The next improvement in point of importance to the State and the nation, may be classed the Virginia and Tennessee railroad, is rapidly approaching completion at the Tennessee line, where it will connect with a net-work of improvements terminating respectively at Knoxville, Nashville, Memphis and Little Rock in Arkansas, embracing a large section of country, with no direct line of communication with a foreign mart and abounding in incalculable wealth, much of which will from necessity seek a transit by this line and through the capes of Virginia. Add to this the inexhaustible quantity of iron, salt, plaster, lead, &c., which would pass over this road, and the vast amount of merchandise westward bound, together with the increasing travel from the south to the seat of government and other northern cities, and from those cities to the Southern borders of the confederacy, and the conclusion becomes irresistible, that this will rank among the most productive and beneficial improvements within the commonwealth, especially when the all important connection with the Gordonsville and Alexandria road shall have been completed.

Add to these improvements the great water line of the James River and Kanawha company, now extending continuously two hundred miles, and affording communication for heavy produce and tonnage, acting as the recipient of these from its own line and from the important works already noticed, and we shall be able to accommodate all the trade of the immense region referred to in any of the modes it may prefer. It is important, therefore, to place this company in a condition to enable it to comply with engagements for which the State is responsible, and to afford it means to extend and complete its western terminus to the nearest point of easy connection with the great central line of railroads whose completion I have so earnestly recommended.

It affords me pleasure to notice the fact that the Richmond and Danville railroad is rapidly approaching its completion to the town of Danville, its southern terminus, and that before the end of the present year it will probably be in use throughout its whole extent. Its travel have steadily increased, and and it will be the means of affording facilities to market for one of the most productive portions of the commonwealth, developing its dormant energies, and pouring wealth into the capital of the State.

The north-west portion of the State is most happily situated. The Baltimore and Ohio railroad, terminating at Wheeling and Parkersburg, places it within 16 hours of Baltimore, and still nearer to Alexandria by the Hampshire and Loudoun road, when, which will doubtless soon be made. The North-west turnpike from Winchester to Parkersburg and the Staunton and Parkersburg turnpike connecting their points, together with a net-work of well graded turnpikes, not macadamized, afford all the facilities for travel and transportation that the most fastidious could desire. With a climate healthy and salubrious, valleys teeming with grain and grass, and mountains abounding in rich and inexhaustible minerals, it may truly be said that she wants but little, and asks less and that when called upon to contribute to the general fund for public improvements, the appeal, to be successful, should be ad-

ressed to the patriotism rather than the pecuniary interest of the citizens.

The contemplation of the period when the great leading lines of railroad from east to west shall be completed cannot fail to awaken in the minds of our citizens the most favorable anticipations for the future; when the half developed resources of our own State with the untold riches of our western and southern neighbors, shall arrive upon our shores in search of an outlet to a foreign market, shall these fine prospects be blighted or but partially realized for the want of the last and only remaining link necessary to the consummation of the most stupendous and life-giving system that has engaged the attention of our citizens since the day when they shook off the shackles of tyranny, and refused to obey the mandates of a king, and declared themselves an independent people? I trust not. It must not be. The judicious and experienced statesman will not abandon the half finished scheme nor leave it to be executed by his successors, but in the prompt and faithful discharge of his duty, will press it onward to its final consummation. To render these improvements profitable and to enable our people to compete successfully with their enterprising northern neighbors, the benefits arising from the import and export trade should be secured to them and the burden growing out of the coastwise transportation in search of an outlet, ought to be removed, constituting as it does an onerous drawback against our own and southern interest, and ensuring directly to the benefit of the northern route and the northern merchant.

## Miscellaneous and Mechanical.

### STEAM AS AN INDUSTRIAL AGENT.

Mr William Fairbairn; whose great services in developing mechanical science can never be overlooked and forgotten in any quarter of the world where mechanical talent possesses rank at all, has just given one more proof of his attention to the exigencies of the times, by delivering two elaborate lectures at the Manchester Mechanics' institution, on "Steam, its Properties and Application to the Useful and Industrial Arts." In that great centre of steam power, such a subject, commented upon by such an authority, and coming, too, in the wake of the movement there making to secure a better system of steam superintendence, was certain of meeting with more than ordinary attention; and we are glad to find that the lecturer's efforts were duly appreciated by the large audiences assembled to meet him. In that portion of his discourse which related to boilers, he stated that the cylindrical or spherical was the most eligible and the strongest form in which iron plates would resist internal pressure. The deduction for loss of strength, on account of riveted joints and the position of the plates, was about 30 per cent. for the double riveted joints, and 44 per cent. for the single ones; the strengths (calling the plates one 100) being in the ratio of 100, 70, and 56. He found that 34,000 lbs to the square inch was the ultimate strength of boilers having their joints crossed and soundly riveted. Flat surfaces, frequently essential, were not so objectionable with respect to strength as they appeared to be at first sight, but when properly stayed, were the strongest part of the construction. This was proved by the result of experiments made on the occasion of the bursting of a boiler at Longsight. Two thin

boxes, 22 inches square and 3 inches deep, were constructed. One corresponded in every respect to the sides of the fire-box of the exploded boiler, the stays being in squares, 5 inches assunder, and the side containing 16 squares of 25 inches area. The other contained 25 squares of 16 inches area, the stays being 4 inches assunder. One side of both boxes was a copper plate  $\frac{1}{2}$ -inch thick; and the other side of both on iron plate  $\frac{3}{4}$ -inch thick. To these the same valve, lever and weight were attached and the pumps of an hydraulic press applied. That divided into the squares of 25 inches area, swelled .03-inch with the eighth experiment, at a pressure of 455 lbs. to the square inch. At the nineteenth experiment, with a pressure of 785 lbs. to the square inch, the sides swelled .03-inch; and at a pressure of 815 lbs. the box burst by drawing the head of one of the stays through the copper, which, from its ductility, offered less resistance to pressure in that part where the stay was inserted. The tenth experiment with the other box of 16 inch areas, resulted in a swelling of .04-inch, the pressure being 515 lbs. to the square inch. At 965 lbs. the swelling was .08-inch, and from that point up to 1265 lbs. the bulging was inappreciable. With the forty-seventh experiment, at a pressure of 1625 lbs., one of the stays was drawn through the iron plate, after sustaining the pressure upwards of 1½ minutes, the swelling at 1595 lbs. having been .34-inch. The first series of experiments proved the superior strength of the flat surfaces of a locomotive fire-box, as compared with the top of even the cylindrical part of a boiler. The latter evidenced an enormous resisting power, much greater than could be attained in any other part of the boiler, however good the construction; and they showed that the weakest part of the box was not in the copper but in the iron plates, which gave way by stripping or tearing assunder the threads of screws in part of the iron plate. According to the mathematical theory, the strength of the second plate would have been 1273 lbs.; but it sustained 1625 lbs., showing an excess of one-fourth above that indicated by the law, and that strength decreased in a higher ratio than the increase of space between the stays. The experiments show a close analogy as respects the strengths of the stays when screwed into the plates, whether of copper or iron; and riveting added nearly 14 per cent. to the strength which the simple screw afforded. These experiments were conducted at a temperature not exceeding 50° Fahrenheit. His experiments on the effects of temperature on cast iron, did not indicate much loss of strength up to a temperature of 600°; and he concluded that the resisting stays and plates of locomotive boilers were not seriously affected by the increased temperature to which they are subjected in a regular course of working. At the termination of the second lecture, Messrs. E. T. Bellhouse, Fenton, and Kay, severally explained a set of models and drawings of safety valves. Mr. Bellhouse directed the attention of the audience to Cowburn's "oscillating safety valve," as illustrated by us last month; he also explained some diagrams of vacuum and float valves, the joint invention of himself and Mr. Cowburn. Mr. Fenton's valve was shown to be composed of two globular valves under the same lever; at one end of the lever is an adjustable spiral spring, which, when set, can be covered up and locked, so as not to be interfered with; the other end of the lever has an ordinary spring balance.

The peculiarity of this valve is, that if a greater weight be put on the exposed end of the lever, the one ball valve becomes a fulcrum, and causes the other valve to be raised, and allows of the exit of steam at a lower pressure than the spiral springs is set to. Mr Kay's valve is on the piston principle, so arranged as to afford a large area for the emission of steam.



## MILWAUKEE HARBOR.

Col. Barton, the contractor upon the harbor work at this port, communicates to the *American* the following result of his operations so far this season:

I have caused to be constructed during August, September, October, and to 12th November the following amount of work:

650 feet of cribs, 10 feet wide, with ties each ten feet high—6 to 8 timbers; also 100 feet of crib, 10 feet wide, 12 feet high. These cribs are, part for the crib work on the first section, in place of the pile and timber work by old plan, and part for protection cribs. I also have formed 17 cribs 32 by 20 feet, 8 feet high, with grillage bottoms, each crib requiring 39 bolts 20 inches long, and 180 bolts 30 inches long. The cash cost of cribs—32x20—made and bolted as above, to surface of water, is about \$500 each—exclusive of filling with stone, and sinking cribs into their beds.

17 cribs, 32 feet long, is.....544 feet long.  
10 feet crib work.....750 " "

Total.....1,294 feet.

I have put into 350 feet of 10 feet crib work, about 800 tons of stone, and sunk the cribs where they were required. A part of the crib work, formed on the old plan, has two floors in—say 300 feet; one at the bottom of the crib and the other at the surface of the water, so as to keep the stone up that is used on them as protection cribs, and to enable us to take the stone out and put them into 32 feet cribs as we sink them.

It will be observed that I have caused as much work to be done as would have placed 1200 feet of a continuous line of docking in its place, on the old plan. I have also 250 cords of stone in the work, and on hand at the straight cut. If the city had let me done the work on the old, or city plan, as held in June, I would have had, by the 10th of November, the crib work all in and sunk in its place on the first and second sections, viz: 600 feet on north side and 600 feet on south side. Thus you see I would have protection piers by the work built, that would protect the dredge in making the channel between the north and south piers. C. D. BARTON.

The work is one of great magnitude and cost, and cannot be done in a day. Our people cannot be said to be waiting *patiently* for its completion, but they are doubtless willing to allow all reasonable time, though the new harbor is much needed.—*Milwaukee Sentinel*, Dec. 1st.

## BANK OF SOUTH CAROLINA.

The following is an extract from the report of this institution for the past year:

That the net profits of the Bank during the past fiscal year, ending the 30th September, 1855, have amounted to 273,050 92.

Of this sum there has been applied to the payment of the interest on the State Bonds payable in London, the sum of.....\$51,303 79

To the payment of interest on the State 6 per cents. 1834.....46,869 02

And we have transferred to the Sinking Fund the sum of.....174,878 11

—\$273,050 92

We had previously deducted from the profits of the year, the sum of \$20,515 32, being the balance due on sundry bills of exchange negotiated by the Bank, which has been lost by means of a fraud practiced on the Bank, and on other purchasers of ex-

change in this city, by a party who had been engaged in business here.

Herewith are submitted the usual statements, exhibiting the condition of the Bank at the close of the fiscal year.

We have redeemed, of the Public Debt, the following amounts during the year:

|                  |             |                              |             |
|------------------|-------------|------------------------------|-------------|
| Three per cents. | \$1,053 86, | cost.....                    | \$653 96    |
| 6 " "            | "           | ".....                       | 561 86      |
| 5 " "            | "           | Railroad Loan.....           | 465 30      |
| 6 " "            | "           | Fire Loan.....               | 17,037 25   |
| 5 " "            | "           | Bonds payable in London..... | 10,248 96   |
|                  |             |                              | \$28,977 30 |

In addition to the sum of \$10,248 96 applied to the redemption of the Bonds payable in London, other Bonds to the amount of £5,500 had been purchased by the Bank, but they were not received in Charleston in time to enable us to cancel them before the close of the fiscal year. They have come to hand since the first of October, and have been surrendered to the Comptroller General. The portion of the Public Debt is therefore further reduced by the sum of \$26,418, paid for those Bonds. We have not succeeded in our efforts to redeem so large a portion of the European Debt as we had hoped to extinguish during the year. Our agents were authorized to make purchases and to give very near par for the Bonds.\* Very few of them, however, have been put upon the market, and the holders, when applied to, do not readily dispose of them.

Our agents have now instructions to make purchases, and if practicable, to enter into arrangements with the holders for the redemption of a considerable portion of the debt during the current year.

## LIABILITY OF FERRYMEN AS COMMON CARRIERS.

The following opinion was delivered by Hon. Judge Ranney of the Supreme Court of Ohio, on Dec. 22:

1. That a ferryman, in the regular exercise of his employment, of transporting persons and property across a river is a common carrier, within the meaning of the law applicable to that subject; and as such is liable for a failure to transport, safely, property committed to his care, from any other cause than the expected perils.

2. An undertaking to transport animals of the brute creation, imposes the same obligation as pertains to other property.

3. The owner is bound to deal in good faith towards the carrier; and if the carriage of the property is attended with any peculiar circumstances of hazard, known to him, he is bound to disclose it, in order that the necessary precautions may be used; and a failure to do so, when the loss arises from that cause, will discharge the carrier.

4. If the owner, or his agent, takes upon himself the care of his property, while in transit, he does not thereby become the agent of the carrier; and the latter is not responsible for losses arising from his negligence or want of care.

## Earnings of the Detroit &amp; Milwaukee Railway for the month of Nov., 1855.

|                    |             |
|--------------------|-------------|
| From Freights..... | \$10,977 40 |
| " Passengers.....  | 7,571 43    |
| " Mails, &c.....   | 396 36      |

Same for November, 1854.....9,347 77

.....9,597 46

Increase.....10,370

**BUSINESS OF THE BALTIMORE AND OHIO R. R.**—The regular monthly meeting of the Board of Directors of the Baltimore and Ohio Railroad, was held in the Company's office, Hanover street, yesterday morning. The official report of the business of the road for the month of November, which was read to the Board, shows that the transportation eastwardly into the city of Baltimore, of the principal articles, was as follows:

Bark 112 tons; Coal 35,676 do; Fire brick 98 do; Firewood 128 do; Flour 121,919½ bbls; Grain 1,653 tons; Granite 400 do; Iron 465 do; Iron Ore and Manganese 518 do; Lard and Butter 219 do; Leather 289 do; do; Cotton 574 bales; Wool 284 do; Flaxseed 14 casks; Soap Stone 240 tons; Lard Oil 296 do; Lumber 386 do; Lime 86 do; Live stock viz: Hogs 20,137 head; Sheep 1,853 do; Horses and Mules 5 do; Horned Cattle 203 do; Meal and Shorts 287 tons; Pork and Bacon 1,695 do; Tobacco 21 hhds; Whiskey 4,082 bbls; Miscellaneous 569 tons; Hay 7 do; Hemp 123 do; Flour from Washington Branch 3,343 bbls.

The revenue for the month has been as follows:

|                     | Main Stem.  | Wash'n Branch. | Total for both roads. |
|---------------------|-------------|----------------|-----------------------|
| For Passengers..... | \$53,949.36 | \$26,294.75    | \$80,244.11           |
| For Freight.....    | 309,615.09  | 9,260.20       | 318,875.29            |
|                     |             |                | \$363,564.45          |
|                     |             |                | \$36,554.96           |
|                     |             |                | \$399,119.40          |

As compared with the receipts of the corresponding period last year the following exhibit is made:

|                     | Main Stem.   | Wash. Branch. |
|---------------------|--------------|---------------|
| November, 1855..... | \$363,564.45 | \$35,554.95   |
| " 1854.....         | 316,770.86   | 31,101.41     |
|                     |              | \$46,793.59   |
|                     |              | \$4,453.54    |

Thus it will be seen, the increase during the past month over that of Nov., 1854 is \$51,247.13.

**THE GREAT CENTRAL SEA IN TROPICAL AFRICA.**—In the *Calver Missionsblatt* we find, with some letters from Dr. Rebman dated the 13th and 30th of April, a map which is communicated by the learned missionary. On this map between the Equator and 10 degrees of south latitude, and between the 23d and 30th meridian, lies an immense sea, without outlet, twice as large as the Black Sea, including the sea of Azoff. It is designated Ukerewe, or Inner sea, and the well-known Njassa sea appears as a small bay on the south-east. Dr. Rebman refers to a map, in detail, which his companion, Dr. Erhardt, is bringing to Europe. This great discovery, the consequences of which can hardly be estimated, has rested, hitherto, on the testimony of the natives of both shores of the Inner sea, with whom the missionaries came in contact. Dr. A. Peterman remarks, in a letter in the *Atheneum*, that the African geographer, Mr. Cooley, argued long ago for the existence of a single great sea in the center of Equatorial Africa, and this opinion was prevented from becoming general only by the opposition of the missionaries of eastern Africa, who now confess their error.

**EARNINGS OF THE C. C. & C. R. R., FOR NOVEMBER.**—This road is doing a very prosperous business. Its freight is immense.—At this season of the year the travel always falls off, but it is still very large. The figures for November are:

|                     |             |
|---------------------|-------------|
| For Freight.....    | \$74,088 07 |
| For Passengers..... | 42,808 67   |
| For Mail.....       | 5,105 10    |

Total Earnings.....\$120,001 84

The total for Nov., 1854, was.....109,649 54

Making an increase this year of.....10,352 10







## RATES OF EXCHANGE.

| Place.            | Time.      | Buy'g | Sell'g. |
|-------------------|------------|-------|---------|
| On New York.....  | Sight..... | par   | 1/4     |
| Boston.....       | Sight..... | par   | 1/4     |
| Philadelphia..... | Sight..... | par   | 1/4     |
| Baltimore.....    | Sight..... | par   | 1/4     |
| New Orleans.....  | Sight..... | par   | 1/4     |
| England.....      | Sight..... | 109   | 109 1/4 |

## SPECIE.

| GOLD.                        |         |   |         |
|------------------------------|---------|---|---------|
| California clean, \$ oz..... | \$17 60 | @ | \$17 65 |
| Spanish Doubloons.....       | 16 75   | @ | 16 75   |
| Patriot Doubloons.....       | 15 75   | @ | 15 80   |
| Sovereigns.....              | 4 86    | @ | 4 88    |
| Guineas.....                 | 5 00    | @ | 5 00    |
| American, new.....           | 1 00    | @ | 1 00    |
| American, old.....           | 1 06    | @ | 1 06    |
| Portuguese.....              | 1 00    | @ | 1 00    |

## SILVER.

|                        |          |   |          |
|------------------------|----------|---|----------|
| American Dollars.....  | 1 03 1/2 | @ | 1 04     |
| American Halves.....   | 1 03 1/2 | @ | 1 04 1/2 |
| Spanish Dollars.....   | 1 14     | @ | 1 14     |
| Spanish Quarters.....  | 1 00     | @ | 1 01     |
| Mexican Dollars.....   | 1 05 1/2 | @ | 1 05 1/2 |
| Five Franc pieces..... | 97       | @ | 97 1/2   |

\* The standard English value attributed to the Sovereign is \$4.44, in London. This with exchange added, say from 9 1/4 to 11 per cent., gives the American value of the English coin.

## LONDON QUOTATIONS

OF  
AMERICAN STOCKS AND BONDS.

## FROM THE WEEKLY PRICE CURRENT

E. F. SATTERTHWAITE, STOCK BROKER, LON.  
Nov. 30, 1855.

|                                                      |     |   |     |
|------------------------------------------------------|-----|---|-----|
| Belvidere, Del. guar. 1st mort., conv.....           | —   | @ | 87  |
| Chicago & Rock Island, Mort., conv. 1858.....        | —   | " | —   |
| Cin. Ham & Dayton, 2d mort.,.....                    | 80  | " | 80  |
| Erie, 3d Mort., 1883.....                            | 83  | " | 85  |
| " Sinking Fund.....                                  | 79  | " | 81  |
| Galena & Chicago.....                                | —   | " | —   |
| Grand Trunk (Canada) Debenture.....                  | 75  | " | 85  |
| Great Western " conv.....                            | 112 | " | 117 |
| " " non-conv.....                                    | 102 | " | 104 |
| Illinois Central, 1st Mort., 7's.....                | 71  | " | 73  |
| " " with option 70 per cent.                         | —   | " | —   |
| shares till Jan. 1858.....                           | 74  | " | 76  |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill. Cent..... | —   | " | —   |
| Little Miami 1st Mort. not conv. 6's.....            | —   | " | —   |
| Marietta and Cincinnati, 1st Mort.....               | 80  | " | 80  |
| Michigan Central, conv. 8's, 1860.....               | 91  | " | 93  |
| do do do 1869.....                                   | 92  | " | 94  |
| N.York Central. No Mort. Not conv. 6's 80.....       | 93  | " | 95  |
| " conv. 7's.....                                     | 93  | " | 95  |
| Ohio and Mississippi, 1st Mort.....                  | —   | " | —   |
| Ohio and Pennsylvania, Income 1872.....              | 75  | " | 80  |
| Panama. No mort. conv. 1866.....                     | —   | " | 97  |
| Pennsylvania, 1st Mort., conv.....                   | 86  | " | 88  |
| " " Sterling, 2d Mort.....                           | 88  | " | 90  |
| Steuenville and Ind., 2d Mort.....                   | —   | " | —   |

☞ The quotations given are sterling quotations. The American values to be obtained by adding on exchange generally about 10 per cent.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

## BONDS.

|                                                                                            |               |
|--------------------------------------------------------------------------------------------|---------------|
| For the week ending December 26, 1855.                                                     |               |
| \$3,000 Cov'g. & Lex. R. R. Co., 2nd Mort.                                                 |               |
| 7 per cent. Bonds.....                                                                     | 65            |
| 3,000 Cov'g. & Lex. R. R. Co., 10 per cent. Income Bonds.....                              | 61            |
| 5,000 Ohio & Mississippi R. R. Co., 7 per cent. 2d Mortgage Bonds.....                     | 43 (and int.) |
| 3,000 Ohio & Mississippi R. R. Co 7 per cent 2d Mortgage Bonds.....                        | 45            |
| 6,000 Cincinnati, Wilmington & Zanesville R. R. Co., 7 per cent. 2d Mortgage Bonds.....    | 63            |
| 2,000 Cincinnati Hamilton & Dayton R. R. Co. 7 per cent. Bonds, due in 1880.....           | 86            |
| 5,000 Virginia State 6 per cent. Bonds, January Coupons &c.....                            | 96            |
| 1,500 Cincinnati, Wilmington & Zanesville R. R. Co. 7 per cent. Income Bonds.....          | 50            |
| 1,000 Cincinnati Western R. R. Co. (now Cin. & Chicago) 8 per cent. Real Estate Bonds..... | 45            |
| 2,000 Cincinnati & White Water Canal Co. Bonds, with interest from May, 1846.....          | 7 1/2         |

## STOCKS.

|                                                                   |                |
|-------------------------------------------------------------------|----------------|
| 200 Shares Cin. Harrison & Indianapolis Straight Line R. R. Stock | 7              |
| Cincinnati & Chicago R. R. Stock (no interest).....               | 10             |
| 100 " Cin. & Ch. R. R. Co.....                                    | 10 1/2 & Inst. |
| 12 " Little Miami.....                                            | 85             |
| 40 " ".....                                                       | 86             |
| 27 " Covington & Lexington.....                                   | 21 1/2         |
| 80 " Mad River & Lake Erie R R                                    | 25             |

|                                                 |        |
|-------------------------------------------------|--------|
| 100 " Eaton & Hamilton 90 days..                | 30     |
| 20 " Columbus & Xenia.....                      | 80     |
| 61 " Indiana Central.....                       | 46 1/4 |
| 250 " Springfield, Mt. Vernon & Pittsburgh..... | 10     |
| 25 " Ohio & Miss. & Pitts'g.....                | 4      |
| 40 " ".....                                     | 3      |

## NEW YORK STOCK SALES, DEC. 24.

|                                     |        |
|-------------------------------------|--------|
| 50,000 Virginia 6's.....            | 95     |
| 5,000 Tennessee 6's.....            | 95 1/2 |
| 25,000 Illinois Central Bonds.....  | 81 1/4 |
| 4,000 N. Y. Cent. 7's.....          | 100    |
| 7 Shares N. Y. Cent. R. R.....      | 92     |
| 100 " Erie.....                     | 50 1/4 |
| 100 " Harlem.....                   | 18     |
| 1,100 " Reeding.....                | 93 1/2 |
| 50 " Hud. River 1st Mort Bonds..... | 31 1/2 |
| 50 " Mich. Cent.....                | 97 1/2 |
| 200 " Mich. So. and No Ind.....     | 95     |
| 50 " Panama.....                    | 105    |
| 14 " Ills. Central.....             | 97     |
| 50 " Cleveland & Pittsburg.....     | 64     |
| 205 " Gal. & Chic. R. R.....        | 123    |
| 332 " Cleve. & Tol. R. R.....       | 72     |
| 100 " Chic. & R. I. R. R.....       | 86 1/4 |

## Monetary and Commercial.

The present is the holiday week and is therefore a busy one for dealers in fancy articles and holiday goods. General business is not so brisk. Money is less stringent than at last dates. The lines are not less tightly drawn, but parties who are known to be prompt meet with readier accommodation. Merchants are generally busy making up the yearly accounts, and it is found, on the whole, that many have had a better year than they had reason to anticipate. As compared with the conditions of things a year ago, there is every reason for satisfaction. Our crops were abundant, our currency safe, our banks able to sustain themselves and give aid to others, and our merchants hopeful and encouraged. Such is far different from our recollections of the season a year ago.

Eastern advices note less stringency in the markets, but no material changes in the rates of interest.

Below, we give Benson's Circular of Dec. 7th:

We are able to give on this occasion a more favorable report of our money market than has been the case for some time. Several circumstances have contributed to produce this better state of things. The most important of these have, perhaps, been a belief that the extreme pressure has, for a time at least, passed away; and renewed confidence in the stability of the country, and in the soundness of trade generally, notwithstanding the severe ordeal to which it has been subjected.

Rumors of proceedings, preliminary to negotiations for peace, have been current during the past week. The public have not attached much importance to these in their present stage, an opinion doubtless being prevalent that any expressions indicating faith in such rumors, would not tend to promote the object so much desired; besides the conduct of Austria, to whom the rumors chiefly point, has not heretofore been such as to inspire confidence in her future movements. These rumors have, nevertheless, contributed to give firmness to our stock market and to induce purchases.

In our last circular we quoted Consols at 88 1/2 @ 7/8. They subsequently gradually advanced, until on the 5th instant they reached 90 1/2 @ 1/4. Since then there has been a little reaction, and we quote them to-day at 89 1/2 @ 90.

Money has been in demand, and latterly at full rates, arising from the arrangements required to meet the large amount of obligations which always fall due on the 4th of each month. These obligations have been, as heretofore, punctually met. The Bank of England return, published on Saturday last, showed a decrease of Bullion of £123,287. At the Court held yesterday no alteration was made in the rate of discount.

There has been during the last week considerable activity in the market for American Securities. In State Stocks we do not quote much advance, but prices continue very firm. The most important transactions have been in Maryland 5 per cent. Stock, which has changed hands at 90, and for which 91 1/4 is now asked. We quote the price of United States 6 per cent. Stock 106, and the 5 per cent. Bonds 95; Massachusetts 5's 99; Pennsylvania 5 per cent. Stock 74, and 5 per cent. Bonds 80; Virginia 6 per cent. Bonds 87, and the 5 per cent. Bonds 84.

For Railroad Bonds the Market is also very firm. Some descriptions have been in active demand, and particularly those of the Illinois Central Railway Co. The Construction Bonds have consequently advanced from 70 to 75; and Free-land Bonds from 73 to 77 1/2, at which latter prices they have

changed hands. There has also been more inquiry for New York and Erie Bonds—the Sinking Fund have been sold at 82, and the Second Mortgage at 85. Some transactions have also taken place in Pennsylvania First Mortgage at 88 and 89, and in Second Mortgage Sterling at 90; and a large parcel of the Second Mortgage Dollar Bonds have been sold at 75. Illinois Central Shares have changed hands at 4 dis.

The general markets of this city continue active, and the arrivals of Hogs are large. The transactions to-day were considerable, owing, no doubt, to the exceedingly favorable weather for slaughtering.

The Madison Courier of yesterday speaks as follows of the Hog Market in that city:

"David White, at the Mammoth Cave, has killed and packed up to this time, 4 o'clock, P. M., Monday, 24,680 Hogs, and has 4,000 in the pens. White estimates that the number he will kill and pack this season at 50,000. A large amount of the products thereof, owing to the high reputation of the packing, has been taken on foreign account.

"White delivered Mr. Baldwin, a Boston operator, last week, 1,000 Hogs, which averaged 233 1/4—the best average of the season for that number of Hogs.

"Messrs. O'Neill, Bayly & Co. are cutting and packing, as usual, for the English and Irish markets, and Shrewsbury & Price for the English market.

"S. B. Sering & Co. have commenced cutting and packing in the old railroad station house on Ohio street. This firm has killed, to Saturday night, 10,000 hogs.

Cobb & Godman, at the new Model House, on Crooked creek, have killed 6,000 hogs,

R J Elvin gives us a statement of the hogs received at North Madison, per railroad, for the week ending on Saturday last, December 22, viz:

|                  |        |
|------------------|--------|
| D. White.....    | 16,491 |
| Sering & Co..... | 4,700  |
| Cobb & Co.....   | 2,472  |

Total.....23,663

The Louisville Courier of yesterday says:

We hear of no transactions in Hogs, and quote prices nominally at \$5.75 @ 6, remarking that the packing at present is chiefly on drovers' account, with no speculative demand in the market. The receipts continue heavy, with an arrival at Jeffersonville yesterday of one train of forty-six cars of Hogs, about three thousand head. The packing-houses were all in operation yesterday, though the extreme cold weather checked operations during the morning. The total number of Hogs slaughtered up to last night was two hundred and ten thousand."

## MAQUOKETA AND LYONS STAGE LINE.

A daily line of stages is now run from Maquoketa to Lyons, connecting with the cars on the Dixon Air Line, for Chicago.—The route practically brings the inhabitants of that portion of Iowa, fifty miles nearer Chicago than they have ever been before.

## DEPOT ROOFS.

General Moseley has got up a model of a depot roof, on the tubular wrought iron arch principle, which must come into general use. The great difficulty usually experienced consists in making the enormous tressel roofs for depots sufficiently strong without making the weight so great, as to, in many cases, endanger the walls. By Gen. Moseley's plan this is entirely obviated. Roofs built in this manner are lighter, stronger, and as cheap as any other style that can be built. Further than this, they are indestructible by fire, and afford the safest insurance that can be effected against the enormous losses by fire that have hitherto impoverished many railroads.



**Third St. Stock Exchange.**

36 West Third Street, Cin.,

J. L. HICKMAN &amp; CO.,

Stock and Real Estate

**AUCTIONEERS AND BROKERS,**

Sales Daily, at 12 o'clock A. M.

J. L. HICKMAN & Co., are prepared to make Advances negotiate Loans on Stocks, Bonds, Mortgages, business paper, and other securities.

At Private Sale, a choice variety, of Stocks, Bonds, etc.

**New Railroad Map.**

RAILROAD Map of the United States, to be published, Oct. 15, 1855.

A new Railroad Map of the United States corrected from the latest and best authorities. This map was delineated by G. E. Sellers, Esq., of this city, and lithographed by Gibson & Co. It is a fine map, printed on good paper, and is offered in four different shapes.

Plain Lithograph,.....\$0.50  
Colored Boundaries,.....0.75  
Backed with muslin and varnished ready for moulding,.....1.50  
Mounted,.....2.00

Orders for the above maps, accompanied with the money or the amount in postage stamps, must be addressed to T. Wrightson & Co., publishers of the Railroad Record.

The usual discount made to dealers.

Railroad Companies wishing a large number to circulate with reports, or to supply their various offices will be allowed a corresponding discount.

Orders addressed to

T. WRIGHTSON &amp; CO.,

Publishers R. R. Record,

167 Walnut St.,

Cincinnati, Ohio.

**THE SCHENCK****MACHINERY DEPOT**

AND

**Leather Banding Manufactory,**No. 163 GREENWICH STREET,  
NEW-YORK,

KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the Principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

**Oak-tanned Leather Belting,**

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR

Aug. 9 1y

**SODA WATER APPARATUS!**

THE ONLY PATENT CAST IRON  
**SODA WATER APPARATUS**  
IN THE UNITED STATES,

(Patented June 12, 1855.)

**FOR MANUFACTURING SODA WATER!**

Also, every description of Apparatus, either for Drawing or Bottling of Soda Water. Also, the new SELF-TIGHTENING FAUCET, for water or any kind of Liquids, (Patent applied for 1855.) can be made of Brass, Lead, or any other metal, and Silver-Plated. It cannot be left open by carelessness or by children, nor be easily broken. It will out-wear any other Faucet now in use.

Also the new LUBRICATING APPARATUS, (Patent applied for 1855.) for oiling Valves and Cylinders and Throttle Valves of Steam Engines, Locomotives, Steam Pumps, &c. This Apparatus is Transparent, Self-Feeding, and not easily got out of order. It has a Glass Cylinder on the inside of a brass case, which holds the oil, and can be seen at any time when the oil is out. It will do either for Steam Vacuum or Journals. It is the best thing that could be made for Locomotives.

ST&AM GAUGES on a new principle, manufactured and sold by

WILLIAM GEE,

68, Fulton Street, New York.

Dec. 5, 1855.-1y

ALBERT M. SMITH'S  
**PATENT PREMIUM RECLINING & SELF-ADJUSTING CAR SEAT**



For a Night and Day High or Low-back Seat, combined in one,

PATENTED AUGUST 21, 1855.

It was awarded two first premiums, a Gold Medal, at the great Fair at the "American Institute," held at N. York, and a Diploma at the State Fair, held at Elmira, N. Y., 1855.

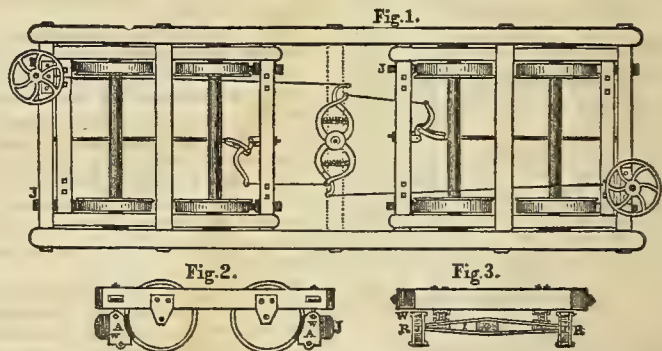
This valuable improvement is adapted and can be applied at a very trifling expense, to the ordinary seat now in use, without impairing its present qualifications as a day seat, and a new seat provided with it, and made in single seats, costs no more than the ordinary seat.

By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects

the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of **ALBERT M. SMITH, Patentee and Manufacturer,** dec20-ly 13 North St. Paul st., Rochester, N. Y., or **TAULMAN & LOW, 157 Broadway, N. Y.**

**L. PAIGE'S**  
**IMPROVED CAR BRAKE BLOCKS.**  
Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (w) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

**Cincinnati, Hamilton, & Dayton R. R.**

SECRETARY'S OFFICE, CINCINNATI, }  
December 1st, 1855.

At a Meeting of the Board of Directors of this Company, held this day, a dividend of 5 per cent. on Stock, was declared out of the net earnings of the road to October 1st, 1855, payable to the Stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York on and after the 15th inst., fractional parts to be paid in cash, at the rate of eighty cents on the dollar, at the option of the Stockholders.

The Transfer Books will be closed for ten days from this date.

Dec. 6-1m

FRANK S. BOND, Secretary.

**Railroad Iron,**

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m  
New York, Aug. 16th, 1855.

**D. D. MILLER,**  
Manufacturer of

LOCOMOTIVE, RAILROAD AND HAND  
LANTERNS,  
190 Water Street New York.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.**

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

**Manufacturing Establishments,  
Railroad Depots and Station Houses,**

at current rates. **L. A. OSTROM,  
Aug. 16. No. 6 West Third Street, Cincinnati.**

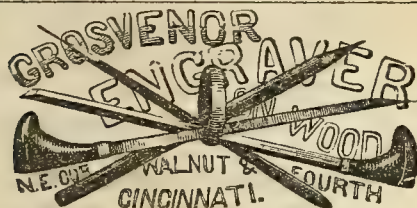
**RAILROAD IRON.**

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via. Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY.** Quebec & Kingston, Canada. **BERRY & WALKER.** Liverpool, England. Kingston, C. W., Sept. 15, 1855.



**T. N. RAFFINGTON,  
GENERAL ENGRAVER,**

North East Corner Fourth and Walnut Streets, over Ohio Savings Bank,

**CINCINNATI.**

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

*Bank Notes, Drafts, Bills of Exchange,*  
**RAILROAD BONDS, & CERTIFICATES**

Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE  
ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**

**BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory Notes, Bill and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, &c., &c.**

Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
**GEORGE T. JONES,**  
South-East corner of Main and Fourth Sts., Cin.

**MIDDLETON, WALLACE & CO.,**

**LITHOGRAPHERS & ENGRAVERS,**

No. 115 Walnut St., Cincinnati.

**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
Beautifully executed and at moderate rates.

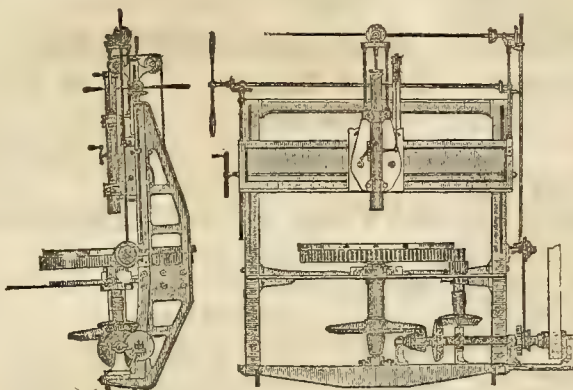
**Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.**

Engraved in all styles and on short notice.

**NILES' WORKS.**

**FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well known class of

**ENGINEERS' & MACHINISTS' TOOLS,  
SHAFTING, GEARING,**

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING  
HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**London Agency for Sale of Bonds &c.**

Messrs LANCE & Co., are making more generally known in England, the great advantages of American securities for investment.

During the present year Messrs Lance and Co. have disposed of a large amount of American and Canadian Railway Bonds, and are fast extending their connections. They will be happy to correspond with parties having good American Securities for sale.

Messrs LANCE & Co. have had experience in the purchase and shipment of Iron, and offer their cooperation to those about to negotiate for the disposal of Bonds and the purchase of Rails.

P. S. Presidents of Railway Companies are requested to favor Messrs L. & Co. with Exhibits or Reports of their Companies as published.

10, Regent street, Waterloo Place, London,  
October, 1855. nov, 15-6m.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines, 28 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable or after the first of December, solicited.

Address, **THATCHER PERKINS,**

President.

Also, for sale, two Twenty Horse Power Stationary Engines. Aug. 9-4t

**Railroad Printing.**

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

**T. WRIGHTSON & CO.,**

Railroad Record Office, 167 Walnut St., Cin.



## PERU & INDIANAPOLIS R. R.

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers.

Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Fright. Agt.  
Indianapolis, October 1, 1855.

## THE KENTUCKY MILITARY INSTITUTE.

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned.

P. DUDLEY,  
President of the Board.

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

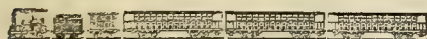
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-11.

## Terre Haute & Richmond R. R.



### Summer Arrangement.

#### TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 24½ hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.  
MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 29, 1855

S. HUETIS Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS IN OHIO.

Time as short to the Eastern Cities, as well as to Chicago and St. Louis, and Fare as Low as by any other Routes.



## Great Miami, [C. H. & D.]

MAD RIVER AND LAKE ERIE,

## CLEVELAND & TOLEDO,

AND

## EATON & RICHMOND RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

### FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo and Chicago. (This train starts by Columbus time, which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

### SECOND TRAIN.

Indianapolis Express, at 6 A. M., for Indianapolis, and all points North and West. (This train also starts by Columbus time.)

### THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with steamer Bay City for Detroit; with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua.

### FOURTH TRAIN

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

### FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

### SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

### SEVENTH TRAIN.

Hamilton Accommodation at 5.30 P. M.

RETURNING.—Trains leave Dayton as follows: at 4.50 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M.

LEAVE HAMILTON at 5.54, 6.45 and 9.00 A. M., and 12.30, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Sup't. C. H. & D. R. R.

E. F. OSBORN, Sup't. M. R. & L. E. R. R.

E. B. PHILLIPS, Sup't. C. & T. R. R.

D. M. MORROW, Sup't. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## IRON BOILER FLUES.

PASCAL IRON WORKS.

## MORRIS, TASKER & MORRIS,

Manufacturers of

## LAP-WELDED BOILER FLUES,

1½ to 7 inches outside diameter, cut to definite lengths, as required.

## WROUGHT IRON WELDED TUBES,

From ¼ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,

PHILADELPHIA.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON, AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,

LA FAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 6.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM H. SMITH, Conductor.

Feb. 8-ly WnRROpeSute M MterODn 1,1p

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana, May 11.

## GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,

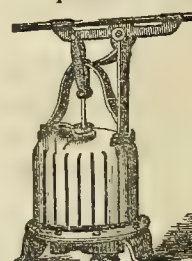
CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION & FORCE PUMP

AND

## Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; we have adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodation is provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

Philadelphia and New York Railroads,  
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.

ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 1 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co.

S. S. POST,  
Chief Engineer and Superintendent.

Omni-buses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-buses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

## STEREOTYPE FOUNDRY, AND AGENCY OF L. JOHNSON & CO.'S TYPE FOUNDRY.

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of

## STEREOTYPING,

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Galleys, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.  
C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

## 1855. New Arrangement, 1855 COMMENCING MONDAY, JULY 16.

## LITTLE MIAMI RAILROAD, VIA COLUMBUS. FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.

LAI'D WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the E. st; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route. CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3½ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30½ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Pittsburg in.....    | 14 "      |
| To Philadelphia in..... | 30½ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

### FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

### THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

### THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

### Covington and Lexington Railroad.

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terrehaute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at LEXINGTON at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryansville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.20 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

FREIGHT TRAINS will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

### RATES OF FARE.

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthiana.....  | 2 00   |

### FOR THROUGH TICKETS

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent,  
The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw. Madison and Scott, Covington.

### CLAYTON & GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road.

nov. 15<sup>th</sup>

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

### VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.

Office, 31 Main Street, west side, 5 doors north of Madison House. SIDNEY RICE, Agent.

Cincinnati, Nov. 1, 1855.

## W. G. ATKINSON, Civil Engineer, Surveyor & Draftsman, CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geologic plans prepared.

mar. 17



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

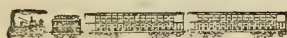
Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

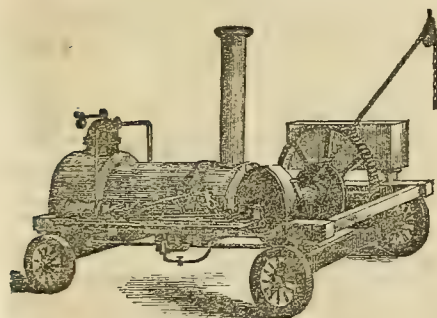
Communications or orders must be addressed to  
OLMSTED, TENNYS & PECK,  
Louisville, Ky.

**Norris' Locomotive Works,**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**  
Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch  
RICHARD NORRIS & SON.  
Jy. 27.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor  
A. L. ARCHAMBAULT,  
S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Prinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

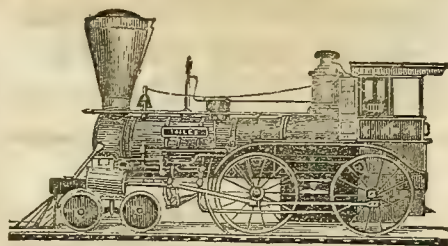
Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the MERCURIAL GAUGE, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—Messrs. DEAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.  
BUILT to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for Iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

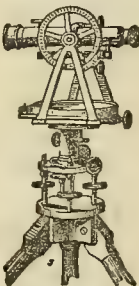
The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHERBURNE,  
PRINCIPAL AGENT,  
May 1846-6\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.****T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.  
No. 1, 2d STORY APOLLO BUILDING,  
CINCINNATI, O.,

MANUFACTURERS OF  
**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

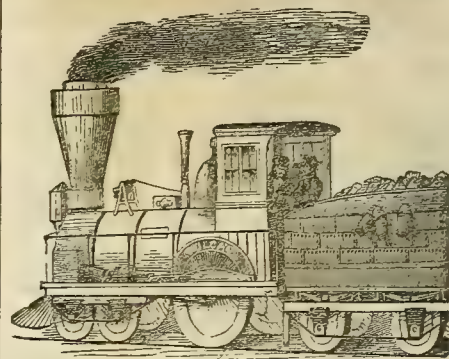
THIRD STREET, (west of Burnet House.)  
CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns, Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 MOORE & RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,  
CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T & F. Wason, Springfield, Massachusetts.  
toc20

**Railroad Car Findings**

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Casting Fit Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**  
Of any required width to 124 inches.

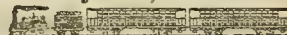
**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight, Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes. Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,  
Late Davenport & Bridges, Car Manufacturers.  
Cambridgeport, Mass.  
ALFRED BRIDGES,  
Late Davenport, Bridges & Co., Fitchburg, Mass.  
toc6

**CAR MANUFACTORY,**  
Dayton, Ohio.

THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

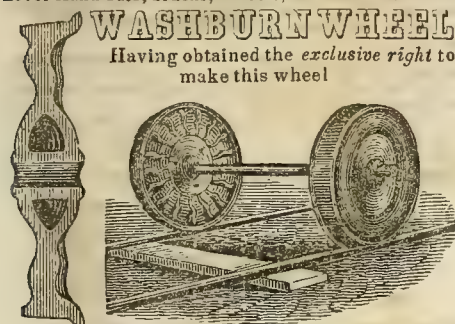
They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan. 24th. 1853. Jan. 25-1



## FULTON CAR WORKS, CINCINNATI, OHIO.

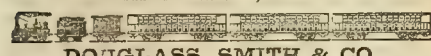
THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

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Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

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**MUSKINGUM WORKS,**  
ZANESVILLE, OHIO.



**DOUGLASS, SMITH & CO.**  
WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight-wheeled Gravel Cars. We manufacture a superior

**CAR WHEEL,**  
Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

**WASHBURN WHEEL,**  
And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**  
We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed  
**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

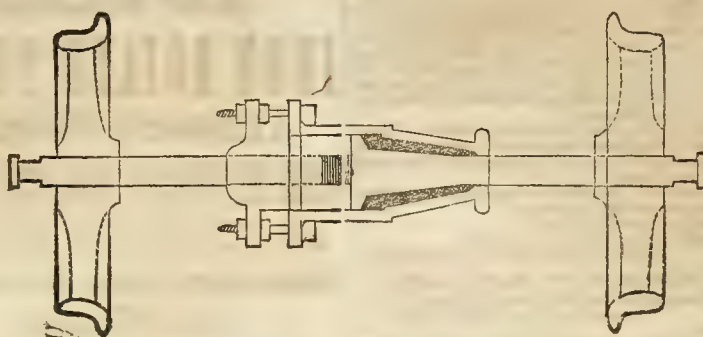
**J. DAVENPORT . . . M. D. WELLMAN . . . C. M. RUSSELL**  
**DAVENPORT, RUSSELL & CO.,**  
**Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 161\* **JOSEPH DAVENPORT.**

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For Railroad Switches, Merchandise Cars  
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n.12J **NEWARK, N J.**

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be rejilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

July 1st

**SAMUEL L. DENNEY,**  
Christiana, Pa.  
Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

**MCDANEL & HORNER,**  
**LOCO- AND CAR**  
**MOTIVE SPRING**

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Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

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**I. R. TRIMBLE, Supt. Philad. R.R. Co.**  
May 19.

**M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.**  
**EMERSON FOOTE, Supt. M. & W. R. R. Macon, Ga.**  
**THOMAS DOUGHERTY, Master Mach. do.**  
**THOS. SHARP, Supt. R. F. & P. R. R. Richmond, Va.**

**DURYEE & FORSYTH'S**  
**PATENT**  
**PLATFORM SCALES.**



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

dec 97

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### REFERENCES.

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**Charles H. Fisher, Esq.,**  
**Jno. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.**  
**Pinckney Huger, Esq., Pres't N.E.R.R. Co.**  
Oct. 13-14.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,  
90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. FOSTER, Jr.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN'A R. R.,  
ALTOONA, Blain Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.  
ENGINEER DEPARTMENT, NORTH P.A. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that this invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

## 28 PLATT STREET, LAP-WELDED IRON BOILER TUBES, Prosser's Patents. TUBE EXPANDERS, FOUR-CUTTER AND CHAMBERING DRILLS, Countersinks, Cutting Bars and Pall- Lever Wrenches,

WHALEBONE AND STEEL WIRE BRUSHES.

## Artesian Well Tubes Screwed Flush inside & outside.

## FREE-JOINT TUBES For Core Bars, Awn- ings, Railings, Leaders, &c., &c. PATENTED

## HOLLOW SLAB WATER TUYERES, For Smith's use, and

## WATER BACKS,

For Kitchen Ranges, and the backs of fire places generally, where a constant supply of hot water is required. Also for water and Steam-tables, for Hotels and Restaurants.

## HOT WATER APPARATUS

For warming air, boiling water and heating ovens.

## ANNULAR SURFACE CONDENSERS,

More especially applicable for Steamers and other boilers, whether high or low pressure, where the only water available is Sea, Mississippi, muddy and other waters unsuitable for raising steam from, on account of their injurious effects upon the Boilers, or for other Condensers, on account of the liability to choke them up.

## KRUPP'S CELEBRATED CAST STEEL,

For Platers, Mint laminating and other ROLLERS of any dimensions (not exceeding 18 inches in diameter by 6 feet in length,

## CAST-STEEL CANNON.

of any calibre.

## PATENTED CAST-STEEL TIRES,

For Railway Wheels. Railway Axles and Springs,  
SHAFTS,

For Steamers and other purposes, not exceeding 6 tons in weight, warranted for ten years by

## FRIED. KRUPP,

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Represented solely in the United States by

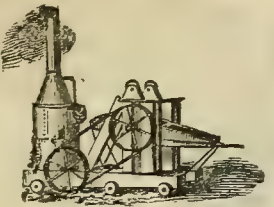
## THOMAS PROSSER & SON,

28

PLATT STREET, New York!

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



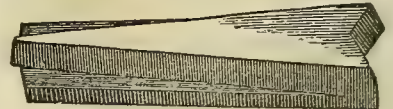
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

nov17+

G. ARTHUR GARDNER,  
Trinity Building, N. York.

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

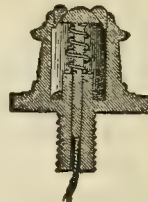
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

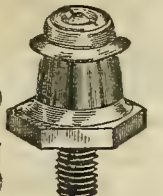
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



OIL  
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For Locomotive and Stationary Engines. For sale by  
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the LARGE MAPS OF CINCINNATI, and HAMILTON Co  
Ohio, and the TOWNSHIP MAPS OF INDIANA and IOWA.  
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# Railroad Record.

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T. WRIGHTSON, {

CINCINNATI:

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London, England.

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### MEMORIAL FOR A PACIFIC R. R.

The friends of all the various routes, are actively engaged in obtaining signatures to the memorials which we sent out in our last issue. The work is a good one, and we bid them "God speed." Under the troublesome aspect of the political horizon, there is no subject of greater interest to every true American than this project, none which will pay our country better, or bring a better harvest to those who carry it to completion.

### SUGAR—ITS PRODUCTION AND CONSUMPTION IN THE UNITED STATES.

It is quite singular, that while the statistics of consumption are professedly given in regard to such things as flour and pork, they are not given in regard to sugar—an article, the exact statement of which is much easier obtained than of either of the others. We cultivate, in the United States but a small section of ground in sugar, and of the crops on that quite exact statistics are kept. Of the imports from foreign countries, the Custom House tables give us the exact amount; while of *maple* sugar we have also precise returns. Thus we can obtain the aggregate of production and consumption with great exactness. For the purpose of obtaining the average consumption of sugar and the amount of tonnage it furnishes in transportation, we give below precise statements of the amount imported into the United States annually; and, also, the proportion of Refined, or Clayed, and Loaf sugars.

We may remark in advance, that while *saccharine* matter is essential to the proper diet of man, and enters, in fact into the composition of almost all vegetables—SUGAR—that is the concentrated form of *saccharine* juice—is a *luxury*. Numbers live entirely without it. Poor nations consume but little, while among the wealthy and luxurious it is consumed in great quantities. Hence, sugar is an article whose consumption depends very much upon *price*. There is scarcely any article of which the consumption increases more rapidly, in proportion to the diminution of price, than that of sugar. Hence, also, the consumption of sugar, in the United States, has been very variable, and the increase of consumption in the last half-dozen years—since the price has been low—is very great. This will be seen in the following tables. We shall first show the importation of Foreign sugar. In this account we have subtracted, from the quantity imported, the amount *re-exported*, so that the statement below gives the prime quantity imported and used in the country for the years given.

#### SUGAR IMPORTED AND CONSUMED.

|                       |                 |
|-----------------------|-----------------|
| In the year 1837..... | 86,141,352 lbs. |
| " 1839.....           | 182,287,129 "   |
| " 1840.....           | 110,941,297 "   |
| " 1842.....           | 160,863,475 "   |
| " 1845.....           | 99,752,969 "    |
| " 1846.....           | 108,070,875 "   |
| " 1848.....           | 244,129,753 "   |
| " 1850.....           | 194,433,629 "   |
| " 1851.....           | 374,666,924 "   |
| " 1853.....           | 448,400,644 "   |

It will be seen from this, that since 1845, a period of ten years, the *importation* of sugar has quadrupled.

It will also be seen, that from 1837 to 1839 and from 1850 to 1853, in each period, the importation of sugar doubled. There can be no doubt, from the exhibition of the above figures, that the reduction of prices has had great influence on the importation of sugar. Let us now turn from the foreign to the do-

mestic supply; and first the production of Louisiana and Texas.

The *New Orleans Price Current* furnishes the number of hogsheads raised in the United States, for a series of years. Reducing it to pounds, we have the following result since 1837.

|              |                 |
|--------------|-----------------|
| In 1837..... | 65,000,000 lbs. |
| 1838.....    | 70,000,000      |
| 1839.....    | 115,000,000     |
| 1840.....    | 87,000,000      |
| 1841.....    | 90,000,000      |
| 1842.....    | 140,100,000     |
| 1843.....    | 100,000,000     |
| 1844.....    | 200,000,000     |
| 1845.....    | 186,650,000     |
| 1846.....    | 140,000,000     |
| 1847.....    | 240,000,000     |
| 1848.....    | 250,000,000     |
| 1849.....    | 247,923,000     |
| 1850.....    | 211,703,000     |
| 1851.....    | 256,547,000     |
| 1852.....    | 321,331,000     |
| 1853.....    | 449,324,000     |
| 1854.....    | 346,675,000     |

We find, from the table, that the *production* of cane sugar has doubled, in the last ten years, and quadrupled in fifteen. In addition to this, the common *maple* sugar averages about *thirty millions* of pounds per annum.

Now, taking the aggregate of sugar imported, and that made in the country, and we have the following supply, estimated in pounds, for successive years:

#### TOTAL SUGAR SUPPLY.

|              |                  |
|--------------|------------------|
| In 1837..... | 101,141,352 lbs. |
| 1840.....    | 237,941,297      |
| 1842.....    | 330,863,475      |
| 1845.....    | 316,462,969      |
| 1846.....    | 278,670,875      |
| 1849.....    | 494,129,753      |
| 1850.....    | 435,736,629      |
| 1851.....    | 641,213,924      |
| 1853.....    | 927,424,644      |

It may safely be assumed, that the average consumption of sugar, in the United States is now equal to *nine hundred millions of pounds per annum*. Deducting from the population of the United States, three millions of slaves, who probably use very little sugar—we have the consumption of sugar equal to about *forty pounds average for each person*. But this consumption of sugar has actually *trebled in ten years*! This is certainly a very extraordinary fact, and indicates a great change, in the habits of living, among the people of the United States. That it is a real, absolute change, in the habits of life, cannot be doubted. Let us show its magnitude by comparing the increase of population with the increase of sugar:

|                   | Incr. Pop.   | Incr. sugar |
|-------------------|--------------|-------------|
| 1840 to 1845..... | 16 per cent. | 50 per cent |
| 1845 to 1850..... | 16 "         | 34 "        |
| 1850 to 1855..... | 16 "         | 100 "       |
| 1840 to 1855..... | 48 "         | 300 "       |

We then see, that the consumption of sugar far outruns the increase of population.—In 1840 the consumption of sugar was but *sixteen pounds per individual*.

In 1855, it is *forty pounds*.

In the period of twelve years, from 1843 to 1854, inclusive, there has been a steady diminution in the *price* of sugar; but not enough to account for the change we see here. The change of prices in New Orleans sugar, has been as follows:



|                   |               |
|-------------------|---------------|
| 1843 to 1846..... | \$38 per hhd. |
| 1847 to 1850..... | 47 "          |
| 1851 to 1854..... | 46 "          |

The price of sugar to the consumer, in the West, has diminished much more rapidly than this. The increase of steamboats and the rapid decline of freights, has produced a great reduction in the price of tropical products in the West; which has been steadily going on for thirty years. The effect of this, together with the increase of population, at the West, has produced an extraordinary increase in the consumption of sugar, and, especially, in the valley of the Ohio. This increase in the Western States is quite remarkable. We find, by a statement in the *N. O. Price Current*, that in twenty years, from 1834 to 1854, the export of sugar, from New Orleans to the Western States, amounted to *one million eight hundred thousand hogsheads*, or, about ninety thousand hhds. per annum; but, when we examine the detail, we find the average annual increase to be very rapid. Taking the aggregate of each five years, and we have the following result:

|                              |               |
|------------------------------|---------------|
| 1835 to 1839, inclusive..... | 181,500 hhds. |
| 1839 to 1844, ".....         | 278,500 "     |
| 1845 to 1849, ".....         | 493,000 "     |
| 1850 to 1854, ".....         | 806,000 "     |
| 1839 to 1844.....            | 53 per cent.  |
| 1845 to 1849.....            | 80 "          |
| 1850 to 1854.....            | 70 "          |

The present consumption of Louisiana sugar in the Western States, to which it is carried by steamboats, amounts to an average of 160,000 hhds. per annum. This is mainly distributed through the three great distributing points of the West—Cincinnati, Louisville, and St. Louis.

Another remarkable fact in the commerce in sugar, is the increase of American Refined sugar. At the present time the amount of Refined sugars imported is not half what it was twenty years since; while the amount of sugar exported is four times as much. This is proof conclusive, that three-fourths of the Refined sugars, now used, is manufactured in the United States.

The comparative consumption of sugar, in Europe and America, is a subject of interest. Mr. McCullough, the political economist, estimated the consumption of sugar, in Great Britain, at 24 pounds per individual, and says this is much more than is consumed in France or any part of the Continent. At present, the consumption in the United States, is 40 pounds per individual; and thus, we see, it is much greater than in Europe, or, probably, any part of the world. This fact is conclusive, if no other could be had, that the people of the United States live more comfortably, and even luxuriously, than any other people in the world, because they have more real income to expend in subsistence and its comforts.

In conclusion, we may add, that the weight of sugar, distributed in the United States,

is 450,000 tons; which, itself, makes no small item in the general account of transportation.

#### TO OUR SUBSCRIBERS AND FRIENDS.

The RAILROAD RECORD has now been established nearly three years, and is a permanent work. In that time, while working for the public constantly, and furnishing a mass of statistical information, not excelled by any other paper in the country, we have had no special effort made on our behalf, nor have we been supported to the extent, which, it seems to us, we deserved. The New Year has come, and while we send our salutations and wishes for their prosperity to all our friends, we take the liberty of reminding them, that perhaps the RECORD deserves a New Year's present, quite as much as many who received one. If any one desires to give the RECORD a present, let him send us a *subscriber*, and perhaps he will find it quite as good a deed, as some on which much is counted. Give us your aid in increasing our subscribers, and we will more than remunerate you in new and valuable information.

#### WARMING AND VENTILATING CARS.

There are few subjects that have so much connection with the comfort of passengers and have received so little attention as the warming and ventilating of cars. A little ingenuity and thought would, almost without expense, make a thorough change in the present system, and one which is very desirable to be made. Cars that are heated by a single stove in the center with two ventilators in the top letting out the warm air, and a stream of cold air entering around every window and door, can never be made comfortable. If they are sufficiently warm at either end, they are roasting heat in the center, and if comfortable at the center, they are freezing cold at either end. Now, a moment's thought would show that instead of the cold air issuing in around the windows, the pressure should be in a reverse direction—the current of air here should be outward. This can only be accomplished by introducing a current of air of sufficient volume to supply the waste occasioned by the ventilators; let this first strike the stoves or other heaters used, and then circulate through the cars. We should then hear no more of stiff necks and colds caught by sitting near the closed windows of a railroad car. A further improvement could be made by putting a stove at each end of the car instead of in the center. This would produce a much more uniform heat and greatly promote comfort.

#### DEPOT ROOFS.

We invite the attention of our readers to the advertisement of a company who propose to build by contract, roofs for depots and machine shops, on the Mosley Tubular plan.—

The supporting part of a roof of this style, consists of light tubular arches spanning the building. They are exceedingly strong and possess the advantage of being indestructible by fire. The metal roof supported by these arches forms the best roof that can be constructed. It is lighter than any other, and cheaper than any other style of equal strength.

#### LUBRICATING OIL.

The great desideratum in a lubricating oil is to obtain one free from the gelatinous substance that gums up the journal, which is not liable to be impaired by heat, and that will not freeze. Now any one that has had any experience in the running of machinery knows well the difficulty in securing any one of these points, and the advantage that would be gained to the mechanic, to obtain all three in one article. This article it is claimed is secured in Ludlow's Lubricating Oil, which is purified Rosin oil. The common rosin oil is deprived of the gelatin by a chemical process and leaves a residuary oil free from gum.

But there is another advantage in this oil that no fish oil can give. While it is an excellent lubricator, it does not readily burn in lamps. Hence the greatest leak in the oil barrel of the shops is stopped. There is no inducement for a dishonest employee to be careful to fill up his lantern before going home and always to bring it back empty when returning.

Those who have tried this oil speak well of it, and continue its use. This is the best test of its advantages.

#### TERRE HAUTE AND RICHMOND R. R.—NEW TIME TABLE.

We are indebted to Mr. Wood the efficient Superintendent of this road for the Time Table which is to take effect Jan. 1st 1856.—There are three passenger trains each way per day, leaving Indianapolis at 11.30 A. M. 2.00 and 8.00 P. M., and Terre Haute at 5.20 A. M. 8.40 A. M. and 9.40 P. M. The Terre Haute and Richmond R. R. is managed with especial reference to economy safety and convenience. It would be well if some of the longer roads would imitate the prudence and management of this one.

#### RESPONSIBILITY FOR MISSING ARTICLES.

There is much yet to be settled in law as to the responsibility of railroads for damages to travelers. Hitherto courts have uniformly awarded to every traveler who claimed them irrespective of the traveler's own responsibility for his loss or accident. The following case recently decided in New Jersey, is of the character in point.

THEY MUST PAY FOR OUR OVERCOATS.—A suit was brought on in Jersey City on Thursday, before Justice Gardiner, against the New York and Erie Railroad Company, by Lewis Barnum of Jersey City, for an overcoat which was stolen from his seat in the cars on that road. The train stopped at Port



ed up in the cars that passengers, in order to keep their seats, must have some article of baggage or wearing apparel in them, left his overcoat there while he went into the refreshment saloon. Upon returning he discovered that his overcoat had been stolen. The Company declined to pay for it. He sued them, and the Justice decided in his favor.

#### TERRE HAUTE & RICHMOND RAILROAD.

The receipts of this road, for November, are as follows;

|                       |             |
|-----------------------|-------------|
| Passengers.....       | \$22,527 00 |
| Freight.....          | 10,418 82   |
| Express and Mail..... | 2,082 15    |
| Total.....            | \$35,027 97 |
| November, 1854.....   | 28,128 57   |

Increase..... \$6,899 40

This increase will be seen to be 24 per cent. of the receipts of last year.

### Railroads.

#### GEORGIA CENTRAL R. R. & BANKING CO.

The annual report of this company, showing its condition and resources on the 4th of Dec, 1855, gives the following exhibit:

|                                                               |                |
|---------------------------------------------------------------|----------------|
| The aggregate earnings have been.....                         | \$1,428,682 99 |
| have been..... expenses of the same period                    | 689,028 71     |
| Showing a net profit of.....                                  | \$739,654 28   |
| The increase of gross earnings over the previous year is..... | \$419,849 66   |
| And of nett profit.....                                       | 205,127 51     |

The current expenses of the road, during the year are exhibited under the appropriate heads, as follows:

|                                                                                                                                                                                                                                                                                        |              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Maintenance of Way, including labor, subsistence and clothing for hands, salaries of all officers connected with the repair department; timber, spikes, and all other material; also, all the expenses for the repair and renewal of bridges, culverts, wells, cisterns and pumps..... | \$218,726 10 |
| Maintenance of Machinery and Motive Power, including all work and material for repairs of engines, machinery in shops, wages of engine-men and firemen, oil and tallow for engines, fuel and water for the same, and salary of master machinist.....                                   | 171,220 82   |
| Maintenance of Cars, including all material and labor on cars, oil and tallow for the same, and salary of master carpenter....                                                                                                                                                         | 57,758 02    |
| Transportation Expenses, including wages of conductors, train hands, labor at depot, agents, clerks, damage, postage, salary of superintendent.....                                                                                                                                    | 197,703 15   |
| Incidental Expenses, including printing, advertising, stationery, and all other expenses not included under other heads....                                                                                                                                                            | 13,620 62    |
|                                                                                                                                                                                                                                                                                        | \$689,028 17 |

The superintendent says:

There is but one item in our expense account that would appear to call for explanation, that is "Maintenance of Way." To this account has been charged extraordinary expenses, as follows:

For elevating the road-bed between Nos. 12 and 13, in addition to what has been paid Dr. E. C. Williamson for removing the earth, for elevating the road-bed at other points, a distance of two or three miles, for grading and other extra work on the Milledgeville and Eaton road, for repairing the breach at McCall's Mill, and for laying track and material used on the new line of road between the 90 and 103 miles. This work, with the increased length of road to be kept up, it is believed, will fairly account for the increased expenditure in this department. We have also had some unusual casualties, which have increased our expenditure in other departments from fifteen to twenty thousand dol-

lars. Among the most important I may mention the burning of two car loads of goods, (burned last year but paid for in this,) and five car loads of cotton. The casualty at McCall's Mill, before referred to, was caused by an unprecedented fall of rain in that neighborhood, carrying away two or three mill-dams above, and for want of vent under the embankment, by reason of the mill on the lower side, carrying it away for the distance of about six hundred feet. The embankment at this point for some distance was fifty-four feet high. Occurring at a time when the business of our road was comparatively light, it caused no serious loss, beyond the cost of repairing the breach.

There is yet about forty-nine miles of the light T rail originally laid on the road above No. 10, to relay. We have about twenty miles of new iron now on hand; in addition to this we ought to have six hundred tons more for the ensuing year. This should be ordered so as to arrive by the 1st of July next.

Notwithstanding the large amount of work done in elevating the road-bed, there are other points that will require considerable work to place the track out of the reach of high water, and it is proposed to continue the work, but not to the extent that has been done for the past year.

The trestle work on the east and west sides of the Ocmulgee river, at Macon, is so far decayed as to require filling up, in order to obviate the necessity of renewing that structure. A contract has been made for masonry to pass the streets, and two small branches, and I have advertised for proposals for doing the earth work; the cost of this work will not vary much from \$9,000, and it is expected will be finished by the end of the year 1856.

The new line of road from the 98 to the 103 miles, mentioned in my last report as having been commenced, was completed and put into operation on the 21st October last. There has been expended upon the work \$67,487 44. The estimated cost was \$63,000. The excess of cost over the estimate was caused by our encountering a quantity of rock which was not anticipated. At No. 10 on this line, we have erected a brick warehouse 40 by 80 feet, which it is believed, will accommodate the business of the station for some years to come.

There are other points where it is believed the line of road may be changed to advantage. The most important in my judgment, is between the 10th and 30th mile. Between these two points there may be a saving in distance of four and a half miles. This change I think is worth the consideration of your Board at an early day.

The very large increase of our business has caused me to reflect some upon the necessity for a double track at some points upon your road. To build a second track will necessarily be a work of some years, and to meet the business that will probably offer, I think it may be prudent to commence this work within the next year or two. It will be necessary to provide a second track first at points where the greatest number of trains pass. As our scheme is now arranged, and as I think, freight trains will continue to run, there are three points that will first call for a second track. First, between this city and the 10th mile, second from about No. 4½ to No. 5½; and third, from about 10 miles, near No. 11—probably from No. 11 to No. 12—say 30 miles in all, which, with a change of

the line from No. 3 down, will, I think enable you to increase the business of the road 33 per cent., with the necessary increase of motive power and cars, and do the work with as much ease and safety as our present business is done. To estimate the cost accurately of building a second track, would require a survey of that part of the road where it is to be built, but judging from the original profiles of the road, I think it would not exceed \$8,000 a mile at the points above indicated.

There is one item of railroad management that deserves particular notice. The Superintendent reports an increase of 49 cars in the equipment, but owing to accidents on other roads, infers that the actual available increase is probably but 10 or 12. He draws from this an argument for transshipping. He says:

Notwithstanding we show an increase in the number of our cars of 49, as above stated, I fear that we have lost quite a number from accidents on other roads that have not been accounted for; so that probably, if an accurate account could be taken now, we would not have increased over the number reported last year more than ten or twelve. My reason for apprehending this result is the fact that, in taking an inventory of our cars recently, we missed the same numbers that could not be found last year. My report of the number of cars owned by the company is predicated upon an inventory taken before we crossed the Ocmulgee, and the number of cars since bought and built. If it is really true that we have lost cars upon other roads, it is an argument in favor of transshipping.

We would suggest that it might perhaps be cheaper to send agents to collect the lost cars, than to tranship the goods or lose the cars.

The following is the report of the president:

|                                                                                     |                |
|-------------------------------------------------------------------------------------|----------------|
| There has been paid into the Bank, from road earnings of past year, the sum of..... | \$1,327,729 07 |
| Showing still due on that account the sum of.....                                   | 100,943 92     |
| The whole sum paid into bank for the year from earnings of road to date is.....     | \$1,433,430 35 |
| Being of earnings, prior to 1st Dec. '54.....                                       | \$ 105,691 28  |
| Earnings since 1st. Dec. '54.....                                                   | 1,327,729 07   |
| The whole bank earnings have been.....                                              | 53,960 85      |
|                                                                                     | \$1,487,391 20 |

These earnings have been disposed of as follows:|

|                                                                                             |                |
|---------------------------------------------------------------------------------------------|----------------|
| Paid road expenses as per superintendent's report. ....                                     | \$689,028 71   |
| Paid bank expenses.....                                                                     | 13,268 54      |
| Paid interest on Bonds.....                                                                 | 20,370 00      |
| Paid dividend, June 1855, (4 per cent.).....                                                | 154,268 00     |
| Dividend declared this day (5 per cent.).....                                               | 191,657 00     |
| Carried to reserve fund.....                                                                | 418,188 00     |
|                                                                                             | \$1,487,391 20 |
| There has been charged to reserve fund for cash expended on road and its appurtenances..... | \$225,184 30   |
| For making good the bank capital.....                                                       | 205,790 00     |
|                                                                                             | \$430,974 30   |

The accompanying statement of the cashier exhibits the condition of the company after the declaration of dividend this day:

The railroad and all its appurtenances stand this day at precisely the amount of road capital.

The bank capital is now entire and separate, and the reserve fund stands at \$326,993 56.



|                                                                 |             |
|-----------------------------------------------------------------|-------------|
| There will be chargeable to reserve fund.                       |             |
| On 1st January 1856, rent of Augusta and Waynesboro' road.....  | \$56,880 68 |
| On 1st April 1856, rent of Milledgeville and Gordon road.....   | 14,000 00   |
| On 1st April 1856, rent of Milledgeville and Eatonton road..... | 14,000 00   |
|                                                                 | \$84,880 68 |

By last report you will see that the uncollected earnings on 1st Dec., 1854, were \$108,211 49. By the preceding part of this report you will see that the sum of \$105,691 28 has been paid on account thereof, leaving (out of a gross income of \$1,009,793 33)—only the sum of \$5,250 21 unpaid. Deductions compose the greater part of that sum.

The increase in the business of the Road and its branches for the year 1854-5 has been very great. The increase in Passage money has been small—in the carriage of merchandize up, it has been considerable, and in transportation down of produce it has been large. The crops of the present season have been extraordinary, and this fact has led to a better carriage of merchandize up. The rivers have been generally too low for navigation, and hence in part, the large increase of cotton receipts. The year has been one of prosperity.

It is well to examine and see what will probably be the income of the Road for the year on which we have just entered. The earnings mentioned in the Superintendent's Report, viz: \$1,428,682 99, and the expenses there detailed, have been made and spent on the Central Road proper—on the Augusta & Waynesboro Road and on the Branch from Gordon through Milledgeville to Eatonton.—The whole length of the Railroad line is 283 miles—the whole capital of the line \$5,382,000.

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| The gross income of the Central Road for the year has been..... | \$1,280,570 12 |
| Of the Augusta & Waynesboro Road.....                           | 106,850 75     |
| Of the line from Gordon to Eatonton.....                        | 41,232 12      |
|                                                                 | \$1,428,682 99 |

Our lease on the line from Gordon to Eatonton is perpetual at \$28,000 per annum. Our lease of the Augusta and Waynesboro Road will expire with the present year, 1855. On and after the first day of January next, that Road will be conducted by the company owning it, on their own account.—In estimating our income for the year beginning 1st instant, there should be deducted the amount of the gross income of the Augusta Road. Allowance should be further made for short crops. Whilst we may lose the carriage of much cotton by a better state of navigation, we must gain largely of that product by the Mobile and Girard and the Opelika branch Roads. It is pretty certain that the carriage up of goods for Alabama and Tennessee will be considerably increased, and we shall certainly save in the item of current road expenses. The board believes that with ordinary crops, and without serious accident, the income of the Central line and the line from Gordon to Eatonton for the year just commenced will not fall short of \$1,200,000 gross, and \$650,000 net.

It is necessary to pay particular attention to the work yet necessary to be done on the Road, and to the amount yet required for additional motive power. The prosperity of the Company should not make us close our eyes to the fact that with increasing business there must be largely increased facilities. Although it is most satisfactory to know that within the past year, near ten miles of the Road which were subject to injury from ex-

traordinary freshets have been so raised and changed, as to afford ample security for the future, we must remember that there is much work to be done. The report of the Superintendent shows the quantity of rails remaining to be renewed, the number warehouses to be built, and other necessary work to be accomplished; what remains to be done, must, of necessity, be carried through three years. It is believed that all can be accomplished by the expenditure of \$200,000 in 1856—and of \$150,000 in each of the years 1857 and 1858. If the estimate of future income shall be realized, there will be no difficulty in maintaining dividends at the rate of ten per cent. per annum, and meeting this expense. Such of the Company's Bonds as fall due within the three years can be met by the sale of stocks.

The Board agrees with the Superintendent that we should look to the subject of a double track on parts of our line. The thirty miles recommended by him can be built and opened for use for the sum of \$240,000. To raise that sum it will be necessary to apply to the Legislature for an extension of the Company's capital, and then to sell additional stock—or to do the work by issuing Company's bonds at ten or twenty years. The Board is unwilling, without positive instructions from the Stockholders, to ask anything whatever from the Representatives of the people. Appeals for aid in the construction of roads, for charters, and for amendments of charters, are crowding thickly upon the Legislature now in session, and this Company, which has through all difficulties and discouragements, fully established a great line of Railroad, an avenue to this seaport for the States own Road, and given great help itself, in the development of the South-western portion of the State, should not now swell the number of applicants for charter privileges. Let it be our disposition to leave our rulers free to give to others who require it the encouragement and aid of the State to perfect that system of Internal Improvement in Georgia, which the citizens of Savannah and Augusta, were the first to begin. We think the true policy of this Company is to issue Bonds to complete the new Road referred to.

The Bridge over the Chatahoochee river at Columbus, designed for the passage of the Opelika Branch Road, is near completion.—It is expected that the Depot of that Road will be opened in the city of Columbus by the tenth of next month. The line hence to Montgomery will thus soon be relieved from the long portage hitherto existing.

We learn that a contract has been made for the renewal within ninety days of the burnt portion of the Bridge of the Nashville & Chattanooga Company across the Tennessee river, and that, in the meantime, no greater delay than six hours will occur in the transportation of goods and produce.

There was not, in December last, a quorum at the annual meeting. The Board earnestly and respectfully asks that Stockholders will appear in person or by proxy at the next annual meeting on the 18th day of December instant.

DELAWARE AND MARYLAND RAILROAD.—At a meeting of the stockholders of this Company, held in Easton on Saturday last, it was ascertained that \$38,000 of unconditional stock had been subscribed, and some \$27,000 of conditional stock. Gen. Tench Tilghman, of Talbot county, was unanimously elected President of the Company. I. C. W. Powell

and Wm. B. Clark, Esqrs., Capt. H. J. Strandberg, Maj. J. Merrick, Dr. G. W. Goldsborough, Robert Jarrel, and David Knotts, Esqrs., were elected Directors, to serve till the annual meeting in December next. Mr. J. P. Manlove, of Caroline, was elected Treasurer. The salary of the President was fixed at \$1200 per annum, and that of the Treasurer at 1000, to commence from the 14th inst. The bond of the Treasurer was fixed at \$50,000. Other business of minor importance was transacted.

#### MAYSVILLE AND LEXINGTON RAILROAD.—JUDGE GOODLOE'S DECISION.

We copy from the *Lexington Observer* an outline of the decision of Judge Goodloe, just rendered in our Railroad case. He has taken the view of the mortgage, that we have all along believed, and so published in our paper more than fifteen months ago, he would take. The late hour at which the decision was received, leaves no room or time to comment.—*Maysville Eagle*.

MAYSVILLE AND LEXINGTON RAILROAD.—His Honor, Judge Goodloe, has rendered a decree in the case of James Punnett, *et al.*, vs. the Maysville and Lexington Railroad Company, &c., the main points established by which are as follows:

1st. This transaction was substantially a borrowing and lending of money in the State of New York, and is governed by her State laws, &c. While the claim of the plaintiff is usurious and void by the general laws of New York, the act of 1850 which prohibits corporations from interposing the defence of usury, binds all parties claiming under the corporation, at least to the extent of the money loaned and interest thereon. The plaintiff's claim for \$500,000 is reduced the amount of the usury, and is sustained for the remainder.

2d. That the 29th section of the amended Railroad charter, legalizing the contract of the company with the plaintiff, although assented to by the defendants, Nash, Seymour & Co., as stockholders, does not affect their interest as creditors, and junior mortgagees.

3d. The deed of trust grants to the plaintiff two distinct rights, viz: the power of absolute and final foreclosure and sale by the chancellor, and the power of the trustees to enter, take possession and sell. The latter power can only be exercised on default of payment of principal, but the former can be resorted to, and a foreclosure and sale *pro tanto* obtained when instalments of interest are due and unpaid. As the company admit their insolvency, and their inability to make profits out of the road equal to the interest on the plaintiff's debt, an absolute sale of the whole would be ordered now, if it were not for the rights of Nash, Seymour & Co., which have to be protected.

4th. The after-acquired property passed to the first mortgagees, and against Nash, Seymour & Co., who were junior incumbrancers with notice of the covenant of further assurance in the first mortgagees.

It is further ordered that the Commissioner sell the rolling stock on the road, on the terms and credits set forth, and that he shall ascertain and report the best terms on which he can lease the road from Lexington to Paris for a period of five years from the termination of the present lease; rents payable semi-annually, to meet the interest on the bonds



held by the plaintiffs, and he shall advertise the same, &c.

The case, we understand, will be taken to the Court of Appeals, as indeed it is probable it would have been, no matter what the decision of the chancellor may have been.

#### INTERNAL IMPROVEMENTS IN FLORIDA—GOVERNOR'S MESSAGE.

We make the following extracts from the message of Gov. Browne of Florida to the legislature of that State.

The Act to provide for, and encourage a liberal System of Internal Improvement, approved on the 6th of January last, has inaugurated a new era in our State. The lethargy of former years has given place to energy and enterprise. Under its encouragements, the Central, Atlantic, and Gulf Railroad Company have surveyed and located the Road from Jacksonville to Alligator, a distance of sixty miles, and have advertised for proposals for its construction. The Pensacola and Georgia Company have surveyed and located their line of Road from Alligator, westward, as far as Tallahassee, and have advertised for proposals for its construction. There are also encouraging, and I think reliable assurances from the West, that as soon as the part now located is placed under contract, and a connection with the Atlantic rendered reasonably certain, there will be a movement made in that direction which will hardly fail at an early day to place our Atlantic ports in connection with the beautiful bays of St. Andrews and Pensacola. The Florida Road has been located from Fernandina to Cedar Key, and the whole line placed under contract.—The Tallahassee and St. Marks Road has been nearly re-graded, the cross ties furnished, the iron purchased, a part delivered, and the balance expected daily. These are the results of about ten months of active effort, and furnish a happy assurance that our great system of Roads can and will be completed at no distant day.

Each of the companies above named have since your adjournment, had the aid of practical and intelligent Engineers; and experience it is said, has shown that some of the details embraced in the general bill may be repealed or modified with great advantage to the Stockholders, and without detriment to the Internal Improvement Fund. These modifications will probably be asked by the companies interested, and so far as they may be made, without impairing the security of the fund or encroaching upon vested rights and are calculated to facilitate the construction of the Roads, I shall take great pleasure in co-operating with the General Assembly.

The Southern or Peninsula Road, extending to Tampa Bay, and which I regard as a most important part of the system, has been retarded in consequence of the failure to procure the necessary amendment to the charter of the Florida Road, at your regular session. This to me has been a matter of deep regret; and I cannot too earnestly urge upon the General Assembly the importance of granting a liberal charter for the construction of that important link in the chain of our great State enterprise.

The Pensacola and Georgia Road, I understand, was also an applicant for important amendments to its charter. That application, like the one for Tampa, failed, and the failure has, I understand, resulted in some embarrassments to the company. It is not too late, however, to make the necessary

amendments, and I respectfully recommend that the general assembly grant such charters and make such amendments to existing charters, as may be necessary to carry out and perfect the State system as inaugurated by the general bill approved January 6th, 1855. While I would thus earnestly recommend great liberality in granting, amending, or modifying charters of Companies which may undertake the construction of any part of the great lines of Railroad embraced in the State System, I would, with even greater earnestness, *urge the General Assembly to protect the system by refusing to grant charters calculated to allow rival enterprises from neighboring States to connect with the Gulf through our territory on such terms as to secure advantages over our own Roads. Such grants would be hazardous to the State fund, and illiberal to our own citizens who have embarked in the construction of our State system.*

In this connection, I would respectfully call the attention of the General Assembly to the bill entitled "An Act incorporating the Florida and Macon Railroad Company," which passed both Houses prior to your adjournment, and which under a high sense of my official duty I was compelled to return, without my approval to the House, in which it originated. To the objections I then urged I would beg leave to add another. It is that the Corporators are strangers to us and our State, and not presumed to feel special interest in our success except to the extent that it could be made beneficial to them. On this subject our neighboring State Georgia, furnishes us warning and a profitable illustration, in her Brunswick enterprise. Let us profit by her experience.

#### RAILROAD DEVELOPEMENT OF CANADA.

The recent opening of the St. Thomas section of the Grand Trunk R. R. of Canada was an occasion for the interchange of cordialities between our northern neighbors and many of our citizens. It has given us a better idea of the developement of Canada. The editor of the Rochester American says:

"Five years have developed the railway system of Canada beyond the expectations of the most sanguine. Five years ago almost the only railway in Canada was the Lachine Road, measuring eight or nine miles on the Island of Montreal. Then came the Great Western, from the Suspension Bridge to Detroit, across the fertile and populous peninsula between the Lakes Ontario and Erie and the Georgian Bay. Then the Cobourg and Peterboro', the Prescott and Bytown, and the Toronto and Collingwood roads.—But the greatest enterprise of all is the Grand Trunk, which was commenced within the last five, and which it was foretold, would not be completed under 15 years, but which is already nearly done. Beginning at Portland, in Maine, this road runs to Richmond in Canada East, where it divides, one branch running to Quebec, and the other to Montreal thus opening a railroad connection between the two great cities of Canada East. Leaving Montreal, the Grand Trunk takes the north shore of the St. Lawrence, and is finished as far West as Brockville, and perhaps farther. Here there comes in a gap of about 200 miles to Toronto. This gap is under way at present, and together with the extreme western end, now unfinished, will be finished next year. From Toronto the Grand Trunk

proceeds westerly to Guelph, whence it will be carried to Port Sarnia, on Lake Huron, 45 miles north of the terminus of the G. W. R. R. Thus from Toronto to the river St. Clair, there are two rival roads competing for western business, and each developing a wondrous growth of population and of products along its route.

"The road whose opening was celebrated last week, forms no part of the Grand Trunk. It is leased perpetually by the Great Western Road, and thus forms a part of it. It is a rival of the Grand Trunk. This road—the Hamilton and Toronto—was built almost entirely by English stockholders. The G. W. R. R. leases it for six per cent., and guarantees that the dividend upon it beyond six per cent, shall be the same as that of the Great Western. So if the latter divides 8 or 10 per cent., the former will be equally productive to its owners.

"The roads we have named, with the unfinished portions of the Grand Trunk, are some 1600 miles in extent, and all the result of five years' labor. They extend the entire length of the populated portion of Canada, and connect the region on the western lakes with the sea board by a direct and rapid route.

"Lying back of these roads is a rich agricultural region; land heavy with the best of lumber; land whose soil is black with the mould of centuries; land which is fast being taken up and brought under cultivation, and which is already pouring its crops upon us, and through our arteries of commerce to the Atlantic ports, and thence to Europe.

"A well informed gentleman told us the other day, some facts in regard to the rise of lands in value, along the R. R. routes. He said that men who had deemed themselves poor, in the possession of real estate, were now wealthy in its enhanced value, and demand for farms. The \$25 per acre of five years ago, have now become \$100, and village and town lots which then sold for \$50 or \$75, are now commanding \$1000 or \$1500. Far back in the interior, the crash of falling trees, and the sound of the hammer and the saw indicate that land is being cleared, and the habitations of man are being erected.—Canada is taking a new stride in the march to power and wealth, and something like Yankee enterprise is stirring in hearts hitherto unexcitable, and in muscles hitherto of sluggish action. It is already responding to the heavy tread of the iron horse, while it acquires new power from the clamps of the iron roads that have been laid upon it. English capital has done much, but Canadian wealth has borne its part in entering upon these experiments which have proved so profitable.

#### LONACONING COAL AND TRANSPORTATION COMPANY.

We find the following description of improvements made by this company, in the *Piedmont Independent*, a spirited sheet, printed at Piedmont at the foot of the mountain on the Baltimore & Ohio Railroad:

THE LONACONING COAL AND TRANSPORTATION COMPANY.—This company has just commenced operations. The first coal was shipped on the 12th inst. On Monday last we visited their mines in company with several of our friends from Piedmont, among whom was Edgar Loomis, the efficient Superintendent of the Hampshire mines. After taking a survey of the load house, we got into a car and rode over the tram road. This road



is something over a mile in length—is constructed in a superb and substantial manner, and is laid with the compound rail. We were struck with the perfect grade of this road. Not a jar is experienced in riding over it. All the fills are made of rock. This grade ascends at the rate of about 200 feet to the mile. At the foot of the place a little village is commencing, called McAleerville, after L. F. McAleer, the energetic and excellent Superintendent of the company. Here we got out of the car and ascended the inclined plane on foot. This plane is some fifteen or sixteen hundred feet in length. It is constructed in good style and bespeaks a desire on the part of the Superintendent for permanency. The track, both on the plane and tram road, is laid with a four feet gauge.—this is a novel plan in this region of constructing mining tracks, and we are inclined to think possesses some advantages over the narrow tracks. We went into the mines where the workmen were at work. They are working the vein to its utmost extent—presenting a beautiful specimen of coal, remarkable for its purity and solidity. This coal ignites quicker and burns freer than any coal we have tried. We learn that this company own some 4700 acres of coal land nearly the whole of which is underlaid with the big vein. At their connection with the George's Creek Railroad they have a siding of some 1600 feet in length which is laid with the heavy T rail. We also understand that they already have orders for coal sufficient to keep them busily engaged for some time to come. We, as well as those in company, were well pleased with our visit. This company deserve great credit for the indefatigable energy manifested in prosecuting this enterprise to its final completion, the cost of which has been about \$20,000, and we hope they may be favored with unabated success as a partial reward for their industry in helping to more fully develop the resources of this region.

## Miscellaneous and Mechanical.

### PHYSICAL GEOGRAPHY OF NORTH AMERICA.

The physical geography or rather the physical features of the geography of our country is little understood, even by those who should be best acquainted with it. We find the following interesting remarks in the Ninth Annual Report of the Smithsonian Institute:

Since the annexation of California our geographical knowledge of the western half of our continent has made a progress the rate of which is unsurpassed in the history of geography, and almost equals the fastness of California life itself, by which it has been produced. In every direction the great wilderness of the western tablelands, and of the continental slope along the Gila and Colorado, together with the adjoining portion of Sonora, is traversed by engineers, by cattle traders, emigrants, prospecting miners, and bold adventurers, who all contribute in daily augmenting our store of topographical details concerning these vast regions. But while this store is accumulating, it cannot be expected that travelers who have to pay attention to some particular and more or less immediate interest, should trouble themselves with geographical questions of a more general character. Thus some misconceptions in our general ideas of the physical structure of our con-

tinent, produced by some former and premature generalizations of systematic geography, are still propagated by maps and books, as well as Congressional railroad speeches, and the influence of these errors on different branches of science, as well as on common life, is important enough to make it worth while to correct them. I am referring here to the prevailing notions of the geographical system of our continent, or the manner in which its mountain chains and table lands are generally believed to be arranged and connected, or separated. As this arrangement, together with the geological constitution of the soil, form the principal conditions of the local deviations of climate and of the distribution of organic life, it is easy to conceive how the most interesting chapters of physical geography must be affected by any prevailing misconception in that respect.

A correct knowledge of the whole system of elevations and depressions of the surface of a country can only be the result of a complete and careful topographical survey and subsequent representation. To execute such a task over a large continent like that of North America, can only be the work of generations. Even the most advanced States of Europe, small as they are in extent, and almost unlimited as the power of their governments is to expend money for such a purpose, have only lately succeeded in possessing good topographical maps of their territories. But while thus we must resign to our grandchildren the satisfaction of having a clear and correct conception of the ups and downs of the continent we inhabit, we are under the necessity, for our own present wants, to form an approximate idea. Insufficient as the number or our observations must be, and disconnected as they are in a great measure, we must try to fill up the *lacunæ* of our knowledge by generalizations and ideal connections. It is natural that, in so doing, we should be exposed to error; but we shall keep our mistakes within the narrowest possible limits, if we proceed by the way of simple inductions, and refuse to submit to premature theories. No doubt the propensity of the human mind to bring isolated facts into an ideal connection, originates in our highest intellectual faculty, by which alone we are able to discover the general laws which govern the endless variety of causes. But there is scarcely one science which has not been led astray from time to time by this same propensity, and no science, perhaps, more so than geology, of which orography, or the knowledge of the external form of the dry surface of our globe, may, in some respects, be said to be a chapter, while physical geography in general is its descriptive department.

Among the many mistaken notions still prevalent on that subject, is the opinion that the principal systems of water-courses or the great river basins and continental depressions must be divided by mountain chains. In America this is not more true than in any other part of the world. But great and important as is the number of well known facts which prove that the less striking differences of level followed by the water-courses of a country may be independent of the system of real mountain chains, both being very often the results of two entirely different series of causes, still these facts are regarded as mere exceptions to a general rule, and, wherever positive observations are wanting, geographers continue to fill up the

blanks in our maps according to that supposition. Thus, to separate the Pacific from the Atlantic slope, and especially from that towards the Mexican Gulf, the Rocky Mountains have been brought into an imaginary connection with the Sierra Madre of Mexico, and this latter chain has been forced on our maps to take a direction which it does not take in reality. I have often heard the name of the former unhesitatingly extended to the latter by Americans living in northern Mexico, though there is an interval of several hundred miles in longitude and latitude between their nearest points. A generalization of even a bolder character is sometimes made, when the Sierra Madre and the Rocky Mountains together are said to be the continuation of the "Cordilleras" of South America. But the system of the Andes does not continue through the Isthmus of Darien; and the hills of the Isthmus of Panama have little to do with them. These hills, again, are not connected with the mountains and table lands of upper Musquitia, of Honduras, Guatemala, nor with the volcanic cones which rise in isolated beauty from the plains of Nicaragua and San Salvador.

It may be observed that these interruptions of continuity are not important enough to effect a general view of the subject, and it may be conceded that this is true. Certainly we may speak with all propriety of the mountains and table lands of the western side of the new world as of one great system following the course of its western coast from Terra del Fuego to the northern Polar ocean, and separated by wide tracts of flat and, comparatively speaking, low country, from the groups and chains which occupy certain sections of the eastern side of the northern and southern continents. But this is only repeating a fact almost too general and simple to be much dwelt upon. It being once known, as it is, to everybody, the special arrangement of the numerous subordinate members becomes the object of investigation, and it is this object we have here in view.

In this investigation the question is not only whether certain groups or chains of mountains are really connected or separated, but what other relations may exist between them, relations that may be of high interest to the geologist and meteorologist, or to those who are studying the laws of the distribution and diversity of vegetable, animal and human life. Mountains, though separated by intervening space, may be the productions of simultaneous and connected geological processes, or, by taking corresponding situations in reference to the whole geographical structure of their respective regions, may form corresponding parts in the system of natural circumstances and conditions, so that one may be said to be the *equivalent* of the other in one or the other of the different series of causes and effects which constitute the great organism of nature. Thus we may not only ask whether the Rocky Mountains are connected with the Sierra Madre or not, but we may, if the latter be the case, put the question whether the one must not be considered, at least, as the *equivalent* of the other. This question, indeed, has been raised by the geologists of this country in respect to the different chains of our system of mountains. It has become an interesting question of geology and physical geography, whether the peninsular chain of Lower California is the southern equivalent of the Sierra Nevada



or is that of our coast range, and whether the so-called San Bernardino chain is corresponding to any of the three, or has its own independent character and existence.

Since Elie de Beaumont has drawn the attention of geologists to certain relations which appear to exist between the bearings of mountain chains and the geological periods of their respective upheavals, it has been asserted that such questions should be decided; and that the classifications and nomenclature of geography should be regulated by the facts which constitute geological character, and not by those of mere outward form. But it is easy to show that by subjecting the whole matter to the domination of a mere scientific principle, we yield to the claims of one science at the cost of the equally just claims of another, as well as of every-day utility. Thus, for example, it is a well established fact of geology, that different sections of the Alps are to be referred to different geological epochs, while each of these sections has its geological equivalents in certain more or less distant parts of the world. Still it is in the interest of climatology and of the study of the distribution of plants and animals, as it is in that of common life and of human history, to adhere to the old and natural way of viewing and naming, by which the Alps are considered as one mountain chain, which has nothing to do with certain mountains or hills in Spain, in Scandinavia, and in Greece. It is an equally well established fact, that the hills in the south of England and a certain section of the Caucasus, that the Thuringian forest in Germany and certain mountains in Greece, that one section of the Pyrenees and a certain section of the Alps, are to be referred respectively to the same geological periods. Still no sensible man, unless he is considering the matter expressly under a geological point of view, would say that these mountains respectively belong to each other. Even not to augment the sufferings of schoolmasters and school-boys, we should abstain from innovations which would oblige them to become good geologists before they could understand, the one what he is teaching, the other what he is learning. The outward forms of the surface of our globe should be considered independently of the system of geological periods and mineral masses. The knowledge of each, though there is an intimate connection between the two, has its own peculiar interest, and the claims of the geologist in that respect have no better foundation than those of the botanist who would propose to give different names to two sections of the same chain of mountains, because one is covered with pine trees, the other with oak.

(TO BE CONTINUED.)

### NATIVE IRON.

The question of the existence of native iron in Africa has occupied considerable attention recently in the public journals. A correspondent of the Journal of the Franklin Institute gives the following interesting article on the subject.

Not a little interest has been felt in relation to an alleged discovery of native iron in the interior of Africa. Nearly all our journals have published some general statements that have been made in respect to it, coupled with names of practical analysts; on which account we

have waited with some hope that we should have, fully recorded, all the particulars of such an interesting and anomalous discovery. As we have not been satisfied by any explanations, we take the liberty to declare our opinion of the improbability of any such discovery, with the reasons for our conclusions. Inasmuch as we have had similar representations made concerning iron ores found in our own country, it is well that we should clearly understand how pure it is possible for iron to exist in its matrix—the soil or rocks.

Iron has a strong affinity for oxygen, to such an extent that it will decompose water, whether free or in union with soils or rocks.

Most minerals contain water as a chemical constituent, and iron under the slow but sure operation of attraction will, where there is the least permeability of rocks, decompose it, drawing from it, even though at remote distance, its oxygen. Those elements which have the strongest affinity for each other, will unite when brought together, however long time is required. Whether we find iron in plutonic or secondary rocks, at whatever depth below the surface, it is invariably in the state of an oxide, if not combined with other elements. Such has been the universal experience of mining. Meteoric iron having been formed under different circumstances from any that present to us in or upon the earth, we cannot refer to it as conflicting with our statements.

Iron presents such a variety of interesting phenomena under various treatments, that it is very easy to be misled in theoretical conclusions if we do not measure accurately the chemical forces at work. A smith may take a piece of the magnetic ore of Lake Champlain or New Jersey, or of the specular ore of Superior or Missouri, and by careful treatment in his smithery fire will work out a knife blade from one end while the other retains its original appearance. Again, he may take a piece of these ores, and in a moderate fire, allowing considerable time, will convert it into metallic iron, without altering materially its general outward appearance. That the smith and many others should conclude therefore, that the ore was pure iron, is not at all strange. He does not know the influences of heat in driving off, or rather drawing off, its oxygen, to unite with a portion of the carbon of the fuel.

Iron under careful or moderate protection by artificial means may be preserved possibly for ages; but as a general rule it is steadily in process of union with oxygen and returns to earth. It is not reasonable, therefore, to expect to find virgin or native iron, unless it has been formed by some recent cause. Meteorolites are presumed to be ejected from volcanoes of our own or some other sphere. The only other conceivable circumstance under which pure iron might be formed in nature, is by the ejection of trap rock through pure iron ore lying contiguous to coal; but the great improbability of any such occurrence is at once evident to a geologist. The idea of such a possibility would not suggest itself, were it not stated that the alleged native iron was associated with zeolite. A crystallization often occurs in working iron ores which resembles zeolite, and possibly has the same composition. There are no facts presented in relation to the alleged native iron disproving that the specimen was originally magnetic or specular oxide, or the spathic carbonate of iron, and had been converted in a smithery, under a slow fire, by which means, as it may often occur, there was no excess of carbon; on the contrary, crystals of magnetic oxide remained, with quartz and zeolite, a silicate of alumina, and lime or soda.

The following are the compositions of the magnetic, specular, and spathic ores, which are the purest states in which iron is formed in the earth.

Magnetic iron ore ( $\text{Fe}_3\text{O}_4$ ) contains in 100 parts

of iron, 72.4 parts by weight,  
oxygen 27.6 do. do.  
affording 72.4 per cent. of iron by analysis, or about 65 per cent. in a smithery, or catalan forge fire, when carefully managed.

Specular iron ore ( $\text{Fe}_2\text{O}_3$ ) contains in 100 parts

of iron, 70 parts by weight,  
oxygen, 30 do. do. do.  
affording 70 per cent. of iron by analysis, or about 63 per cent. in a smithery, or catalan forge fire.

Spathic iron ore ( $\text{Fe. O. C. O}_2$ ) contains 100 parts

of iron, 48.3 parts  
carbon, 10.4 do.  
oxygen, 41.3 do.  
affording 48.3 per cent. of iron by analysis, or about 40 per cent. in a smithery, or catalan forge fire.

We should remark in respect to this last ore, that when first mined it was yellow, but in time turns to a dark brown color. This ore when roasted becomes the magnetic oxide of iron, the carbonic acid being driven off or decomposed. When found quite pure it may be worked as the others, in a smithery, or catalan forge fire. Most probably this is the ore found in Africa, for the Rev. Aaron P. Davis, who sent the specimens to America, writes that "When he (Mr. George L. Seymour, who obtained it from the natives) brought it, it appeared like a craggy rock, of yellowish color on its surface, and with a very small exception, it could not be separated but by heat and hard pounding with my largest sledge hammer, and a chisel prepared for the purpose." *Heat and hard pounding*, we know not for how long a time, have materially altered the character of the mineral.

When pure iron ore in small quantities is reduced in a smithery fire, it may be worked to any degree of excellence. We have not space to show the relative costs of reduction by various processes, or to set forth the relative value of the products. But it is evident to every one conversant with the nature of iron, that in small quantities, in a charcoal fire, it may be thoroughly worked to a superior quality, as by the natives of Africa, at a heavy cost of labor. A SMALL SPECIMEN OF IRON PREPARED EXPRESSLY FOR ANY CERTAIN PURPOSE, DOES NOT AFFORD A PROPER EVIDENCE OF THE QUALITY WHICH CAN BE MADE FOR THE MARKET, WITHIN THE MARKET VALUE.

We cannot reasonably leave this subject without alluding to what would be the expense of mining native iron, supposing it were found. Even the quotation from Mr. Davis' letter may satisfy our judgment, though there is stronger evidence that it could not be mined at a profit for our market. Native copper when found in masses, costs for mining several times the value of its weight of iron. Copper may be cut with chisels, but who would undertake to cut up solid or even porous masses of iron for its whole value? If there are any who desire the business, they may find in our country pretty extensive masses of iron taken from chilled furnaces, which the furnace masters would gladly have removed from their premises.

Since the above article was written, the writer has received specimens of the iron, and has examined several reports and accounts respecting the reputed discovery. He is fully confirmed in opinion that his views of the iron in question are correct; and that the specimens were "brought to nature" in a smithery fire, from the spathic ore—the proto-carbonate of iron.

If there is an abundance of this ore, or of the others mentioned, in even a moderate degree of purity, found in Africa, and easy of access, it is far more valuable than a seam or deposit of massive native iron. Copper, in masses, may be cut up, and is then worth about \$500 a ton. Crude irregular masses of iron, would be worth not more than 20 to 25 dollars a ton.



TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK

| COMPANY.                                         | NATURE OF BOND.                     | INT. DUE.     | OFF'D. ASK'D | SHS. OFF'D. ASK'D. |
|--------------------------------------------------|-------------------------------------|---------------|--------------|--------------------|
| Alabama and Tennessee.....                       | 1st mortgage, convertible in 1872   | 7 1872        |              |                    |
| Baltimore and Ohio.....                          | Transferable. Taxed.                | 6 1885        | 91 93        | 100 54 56          |
| Do do.....                                       | Coupons. Not Taxed.                 | 6 1875        |              |                    |
| Do do.....                                       | " " "                               | 6 1880        |              |                    |
| Do do.....                                       | " " "                               | 7 1880        |              |                    |
| Do do.....                                       | " " "                               | 6 1885        |              |                    |
| Bellefontaine and Indiana.....                   | 1st mortgage, convertible.          | 6 1866        | 98           | 50 38              |
| Buffalo and Penn. State Line.....                | 1st mortgage, not convertible.      | 6 1866        |              |                    |
| Chicago and Rock Island.....                     | 1st mortgage, convertible.          | 7 1870        | 91 98        | 87 90              |
| Chicago and Mississippi.....                     | 1st " " "                           | 7 1862        |              |                    |
| Do do.....                                       | 2d " " "                            | 7 1874        | 65           |                    |
| Chicago and Aurora.....                          | 1st " " "                           | 7 1866        |              |                    |
| Cincinnati, Newcastle and Mich. Real Estate..... | " " "                               | 7 1859        |              |                    |
| Cincinnati, Hamilton & Dayton.....               | 1st mortgage, convertible.          | 7 1859        | 100          | 100 107            |
| Cleveland, Columbus, and Cin'tist.....           | do do No mortgage, convertible.     | 7 1855        |              |                    |
| Cleveland and Mahoning.....                      | 1st mortgage.                       | 7 1861        |              |                    |
| Cleveland, Paines & Ashtabula.....               | do do 2d " not convertible.         | 7 1861        |              |                    |
| Cleveland and Pittsburgh.....                    | 1st " convertible.                  | 7 1860        |              | 64 65              |
| Do do.....                                       | 2d sec. convertible.                | 7 1873        |              |                    |
| Cleveland and Toledo.....                        | 1st mort. not conv. '73.            | 7 1863        | 93 94        | 50 72 74           |
| Cleveland, Zanesville, & Cin'ti.....             | " " "                               | 7 1867        |              | 60 65              |
| Cincinnati, Hamilton & Dayton.....               | 1st mortgage " till 1855.           | 7 1860        | 86 87        |                    |
| Do do.....                                       | 2d mortgage.                        | 7 1860        | 42 43        |                    |
| Cincinnati, N. C. & Michigan.....                | 1st mortgage, real estate, conv.    | 10 5 & 10 y's | 45 47        | 12 14              |
| Cincinnati Western.....                          | " " "                               | 8 " "         | 62 63        | 30 32              |
| Cincinnati, Wil. and Zanesville.....             | 2d " "                              | 7 " "         |              |                    |
| Cincinnati, Ind. and Chicago.....                | Real Estate.                        | 8 1859        | 45 47        | 10 12              |
| Cincinnati and Chicago.....                      | 1st mortgage, convertible.          | 7 1862        | 75 76        | 7 14               |
| Columbus, Piqua and Indiana.....                 | do do 2d " "                        | 7 " "         | 60 61        |                    |
| Columbus and Xenia.....                          | 1st mortgage, convertible.          | 7 1859        | 80 84        |                    |
| Covington and Lexington.....                     | 2d " " "                            | 7 1863        | 65 66        | 50 21 22           |
| Do do.....                                       | Income. " " "                       | 10 " "        | 62 63        |                    |
| Dayton and Michigan.....                         | 1st " " "                           | 7 1867        |              | 50 20 22           |
| Dayton and Western.....                          | 1st " " "                           | 7 1862        |              | 25 27              |
| Dayton, Xenia and Belpre.....                    | Real Estate.                        | 10 " "        | 60 61        |                    |
| Eaton and Hamilton.....                          | 1st mortgage.                       | 7 1862        | 60           | 25 30 31           |
| Erie and Kalamazoo.....                          | 1st mort. guaranty Mich. S. R. R.   | 7 1862        |              |                    |
| Evansville and Crawfordsville.....               | 1st mortgage.                       | 7 " "         | 80 81        |                    |
| Fort Wayne and Southern.....                     | " " "                               | " " "         |              | 12 14              |
| Franklin and " arren.....                        | " " "                               | " " "         |              |                    |
| Galena and Chicago Union.....                    | Pledge of second section, conver.   | 10 1853-6     |              | 100 123 124        |
| Hillsboro and Cincinnati.....                    | 1st mort.                           | 7 1878        | 60 61        | 50 25 27           |
| Illinois Central.....                            | 1st mortgage, not convertible.      | 6 1875        | 81 83        | 100 97 98          |
| Do do.....                                       | Freeland.                           | " " "         | 80 82        |                    |
| Indiana Central.....                             | 1st mortgage, convertible.          | 7 1866        | 63 75        | 50 46 50           |
| Do do.....                                       | " " "                               | 10 1857       | 80           | 50 50              |
| Indianapolis and Bellefontaine.....              | 1st " " "                           | 7 1860-1      | 75           | 25 50 50           |
| Indianapolis and Cincinnati.....                 | 2d mortgage.                        | 7 " "         | 75 80        | 50 62 63           |
| Indianapolis and Lafayette.....                  | " " "                               | 7 1861        |              |                    |
| Jeffersonville.....                              | 1st " not " "                       | 7 1861        |              | 36                 |
| Junction (Ohio).....                             | 1st " " "                           | 7 1867        |              | 50 11 15           |
| Do Indiana.....                                  | Real Estate.                        | 10 " "        | 70 72        | 10 15              |
| La Crosse and Milwaukee.....                     | " " "                               | 8 1864        | 77 82        |                    |
| Little Miami.....                                | 1st mortgage, not convertible.      | 6 1863        | 77 81        | 50 86              |
| Do do.....                                       | " " " "                             | 7 1858        | 95 100       |                    |
| Louisville and Nashville.....                    | " " unconvertible.                  | 7 1858        |              | 100                |
| Lyons, Iowa, Central.....                        | 1st mortgage, convertible.          | 7 1873        |              |                    |
| Mad River and Lake Erie.....                     | 1st mortgage, convertible till 1855 | 7 1853-6      | 70 75        | 50 25 26           |
| Do do.....                                       | 2d " " "                            | 7 1866        |              |                    |
| Do do.....                                       | Dividend.                           | 7 1860        | 75           |                    |
| Madison and Indianapolis.....                    | 1st mortgage, convert. after 1853.  | 6 1861        |              | 50                 |
| Marietta and Cincinnati.....                     | Domestic Bonds.                     | 7 " "         | 46 50        | 50 16 20           |
| Do do.....                                       | United 2d " "                       | " " "         | 73 75        | 50                 |
| Hillsboro and Cincinnati.....                    | 1st " " "                           | 7 " "         |              |                    |
| Maysville and Big Sandy.....                     | " " "                               | 6 1873        |              | 50                 |
| Maysville and Lexington.....                     | 1st mortgage, convertible.          | 6 1873        |              |                    |
| Memphis and Charleston.....                      | " " "                               | 8 1860        | 97           | 97 100             |
| Michigan Central.....                            | No mortgage, convertible.           | 8 1855-6      |              |                    |
| Do do.....                                       | " " not " "                         | 8 1857-8      |              |                    |
| Do do.....                                       | " " " "                             | 7 1860-90     | 100          |                    |
| Michigan Southern.....                           | 1st " " "                           | 8 1862        |              | 82                 |
| Milwaukee and Mississippi.....                   | 1st " " "                           | 1857          |              |                    |
| Mobile and Ohio.....                             | 1st mortgage 6s. 1884               | 8 1862        |              |                    |
| Nashville and Chattanooga.....                   | " " "                               | 10 1858-62    |              | 50 14 18           |
| New Albany and Salem.....                        | mortgage on 1st section.            | 8 1864-75     |              |                    |
| Do do.....                                       | 1st " on other sec. con.            | 6 1873        |              |                    |
| New Castle and Richmond.....                     | 1st " convertible.                  | 7 " "         | 100 102      | 92 93              |
| New York Central.....                            | 1st mortgage, not convertible.      | 7 1867        |              | 100 51 51          |
| Do do.....                                       | 2d " " "                            | 7 1862        | 80 81        |                    |
| Do do.....                                       | convertible.                        | 7 1883        | 95 97        |                    |
| Northern Cross, Ill.....                         | 1st mortgage, convertible.          | 8 1873        |              |                    |
| Northern Indiana.....                            | 1st " not convertible.              | 7 1861        | 98           |                    |
| Do do.....                                       | 1st " Goshen line.                  | 7 1868        | 83 84        | 95 97              |
| Do do.....                                       | Construction Bonds.                 | " " "         |              |                    |
| Ohio Central.....                                | 1st mortgage, convertible.          | 7 1861        | 67           | 15 20              |
| Ohio and Mississippi.....                        | 2d " " "                            | 7 1860        | 41 47        | 4 6                |
| Ohio and Indiana.....                            | 1st " " "                           | 7 1867        |              | 50 14 18           |
| Ohio and Pennsylvania.....                       | " " "                               | 7 1865        |              |                    |
| Do do.....                                       | Income. No mortgage, convert.       | 7 1872        |              | 50                 |
| Pacific, Mo.....                                 | 2nd issue.                          | 7 " "         | 107 108      | 105 107            |
| Panama.....                                      | " " "                               | 7 1873        |              |                    |
| Parkersburg (or N. western Va.).....             | Guar. City of Balt.                 | 6 1880        |              | 50 42 40           |
| Pennsylvania.....                                | 1st mortgage, convert. till 1860.   | 6 1880        |              | 25 20 27           |
| Pe ru and Indianapolis.....                      | 1st " " "                           | 7 1872        |              |                    |
| Rock River Valley Union.....                     | 1st " " "                           | 7 1860        |              |                    |
| Sandusky and Mansfield.....                      | 1st " " "                           | 10 1853-7     |              |                    |
| Do do.....                                       | 2d " " "                            | 7 1861        | 50 51        | 50 50 51           |
| Scioto and Hocking Valley.....                   | 1st " income.                       | " " "         |              |                    |
| Southwestern, Tennessee.....                     | " " "                               | " " "         |              |                    |
| Springfield and Columbus.....                    | " " "                               | " " "         |              |                    |
| Steubenville and Indiana.....                    | 1st mortgage, convertible.          | 7 1865        |              |                    |
| Terre Haute and Alton.....                       | 1st " " "                           | 7 1862-72     | 91 93        |                    |
| Do do.....                                       | 2d " " "                            | 8 1865        | 78 80        |                    |
| Terre Haute and Richmond.....                    | 1st " " "                           | 6 1866        |              |                    |
| Toledo, Norwalk and Cleveland.....               | 1st " " "                           | 7 1863        | 87 88        | 50                 |
| Do do.....                                       | 2d " " "                            | " " "         |              |                    |
| Do do.....                                       | Guofar. C..                         | 1863          |              |                    |

## STOCK TABLE.

CORRECTED WEEKLY.  
GOVERNMENT SECURITIES.

|                                                           | INT.  | DUE.    | OFF'D.  | ASK'D   |
|-----------------------------------------------------------|-------|---------|---------|---------|
| U. S. Loan.....                                           | 6     | 1856    | 103 1/2 | 105     |
| Do.....                                                   | 6     | 1862    | 112     | 113     |
| Do.....                                                   | 6     | 1867    | 117 1/2 | 120     |
| Do.....                                                   | 6     | 1868    | 118 1/2 | 120     |
| Do (int. ceased July 1).....                              | 5     | 1853    |         | 102     |
| Do Coupons.....                                           |       | 1862    |         | 118     |
| Do.....                                                   | 6     | 1867    |         | 118     |
| Do.....                                                   |       | 1853    |         | 101     |
| STATE.                                                    |       |         |         |         |
| Alabama.....                                              | 5     |         |         |         |
| California.....                                           | 7     | 1870    | 89      | 90      |
| Arkansas.....                                             | 6     |         |         | 96      |
| Georgia.....                                              | 6     |         | 98      | 99      |
| Do.....                                                   | 7     |         |         |         |
| Illinois Canal Bonds.....                                 |       | 1860    |         |         |
| Do do registered.....                                     |       | 1860    |         |         |
| Do do.....                                                |       | 1847    |         |         |
| Do do registered.....                                     |       | 1847    |         |         |
| Do do Internal Impt.....                                  | 6     | 1847    | 105     | 106     |
| Do Interest do.....                                       |       |         | 72      | 75      |
| Indiana.....                                              | 5     |         | 79 1/2  | 81      |
| Do.....                                                   | 2 1/2 |         | 54      | 55      |
| Do Canal Loan.....                                        | 6     |         |         |         |
| Do do preferred.....                                      | 5     |         |         |         |
| Do special preferred.....                                 | 5     |         |         |         |
| Kentucky, 30 years.....                                   | 6     | 1871    | 102     |         |
| Do 16 years.....                                          | 6     |         | 102     |         |
| Do large bonds.....                                       | 6     | 1869-72 | 100 1/2 |         |
| Do.....                                                   | 5     |         |         |         |
| Louisiana.....                                            | 6     |         | 93      | 95      |
| Michigan.....                                             | 6     |         | 97      | 98      |
| Missouri.....                                             | 6     |         | 77      | 84      |
| New York.....                                             | 6     | 1873    | 116 1/2 | 117     |
| North Carolina.....                                       | 6     |         | 89      | 100     |
| Ohio.....                                                 | 6     | 1856    | 102     |         |
| Do.....                                                   | 6     | 1860    | 105 1/2 | 106     |
| Do.....                                                   | 6     | 1870    | 118     | 119     |
| Do Coupons.....                                           | 6     | 1875    | 118     | 119     |
| Do.....                                                   | 5     | 1855    |         |         |
| Pennsylvania.....                                         | 6     |         |         |         |
| Do.....                                                   | 5     | 1870    |         | 89      |
| Tennessee, long loan.....                                 | 6     | 1890    | 95 1/2  | 97      |
| Do Coupons.....                                           | 5     |         | 81      | 83      |
| Virginia Coupons.....                                     | 6     | 1886    | 96      | 98      |
| CITY SECURITIES.                                          |       |         |         |         |
| Albany.....                                               | 6     | 1871-81 | 99 1/2  |         |
| Allegheny.....                                            | 6     | 1875-7  |         | 80      |
| Baltimore.....                                            | 6     | 1870-90 | 100     | 100 1/2 |
| Do.....                                                   | 5     | 1865    |         |         |
| Boston Bonds.....                                         | 4 1/2 | 1860    |         |         |
| Chicago.....                                              | 6     | 1873-7  | 92 1/2  | 95      |
| Cleveland.....                                            | 6     | 1879    | 103 1/2 | 105     |
| Cincinnati.....                                           | 6     | 1861-92 | 96      | 96 1/2  |
| Do.....                                                   | 6     | 1897    |         |         |
| Do.....                                                   | 5     | 1884    |         |         |
| Do W. W.....                                              | 6     | 1865    |         |         |
| Covington.....                                            | 6     | 1857    | 80      | 80      |
| Jeffersonville.....                                       | 6     | 1890    |         |         |
| Louisville.....                                           | 6     | 1880    | 86 1/2  | 87      |
| Memphis.....                                              | 6     | 1882    |         | 72 1/2  |
| New York.....                                             | 7     | 1837    | 100 1/2 |         |
| Do.....                                                   | 5     | 1858-00 | 96      | 99      |
| Do.....                                                   | 5     | 1870-5  | 97      | 100     |
| Do.....                                                   | 5     | 1890    |         |         |
| Philadelphia.....                                         | 6     | 1876-90 | 89      | 89 1/2  |
| Pittsburgh.....                                           | 6     | 1869-78 | 81      | 82      |
| Do coupons.....                                           | 6     | 1863    |         |         |
| Racine.....                                               | 7     | 1873    | 85      | 86      |
| St. Louis.....                                            | 6     | 1870    | 85      | 86      |
| Wheeling.....                                             | 6     | 1873    | 70      | 73      |
| COUNTY BONDS.                                             |       |         |         |         |
| Bourbon, Ky.....                                          | 6     | 1881    | 77 1/2  | 80      |
| Darke, O.....                                             | 7     |         |         |         |
| Fairfield, O.....                                         | 7     | 1862    |         |         |
| Fayette, Ky.....                                          | 6     | 1881-3  | 75      | 75      |
| Hancock Co.....                                           | 7     |         | 70      | 76      |
| Mason, Ky.....                                            | 6     | 1881    | 73      | 76      |
| McCracken Co. Ky., endorsed by New Orleans and Ohio R. R. | 6     | 1866    | 80      | 85      |
| St. Louis.....                                            | 7     | 1871    |         |         |
| BANKS.                                                    |       |         |         |         |
| Ohio.                                                     |       |         |         |         |
| American Exchange Bank, N. Y.....                         |       |         | 118     |         |
| Ohio Life Insurance and Trust Co.....                     |       |         | 95 1/2  | 100     |
| Washington Insurance Co.....                              |       |         | 84      | 85      |
| City Insurance.....                                       |       |         | 70      |         |
| Cincinnati Insurance Co.....                              |       |         | 84      |         |
| National Insurance.....                                   |       |         | 76      | 80      |
| KENTUCKY.                                                 |       |         |         |         |
| Bank of Kentucky and Branches.....                        |       |         | 100     |         |
| Northern, and Branches.....                               |       |         |         |         |
| Southern, and Branches.....                               |       |         |         |         |
| Bank of Louisville.....                                   |       |         | 93      |         |
| Kentucky Trust Co.....                                    |       |         |         |         |
| Farmers' Bank of Kentucky, ex div.....                    |       |         | 102 1/2 | 108     |
| Commercial Bank of Kentucky.....                          |       |         |         |         |
| INDIANA.                                                  |       |         |         |         |
| State Bank and Branches.....                              |       |         |         |         |
| TENNESSEE.                                                |       |         |         |         |
| State Bank and Branches.....                              |       |         |         |         |
| Union.....                                                |       |         |         |         |
| Planters.....                                             |       |         |         |         |
| LAND WARRANTS.                                            |       |         |         |         |
| 60 acre warrants, per acre.....                           |       |         | \$0 95  | 1 00    |
| 80 acre warrants.....                                     |       |         | 0 95    | 1 00    |
| 40 acre warrants.....                                     |       |         | 1 10    | 1 15    |
| 120 acre warrants.....                                    |       |         | 0 90    | 0 95    |



## RATES OF EXCHANGE.

| Place.            | Time.      | Buy'g | Sell'g.   |
|-------------------|------------|-------|-----------|
| On New York.....  | Sight..... | par   | 1/4 prem. |
| Boston.....       | Sight..... | par   | 1/4 prem. |
| Philadelphia..... | Sight..... | par   | 1/4 prem. |
| Baltimore.....    | Sight..... | par   | 1/4 prem. |
| New Orleans.....  | Sight..... | par   | 1/4 prem. |
| England.....      | Sight..... | 109   | 169 1/4   |

## SPECIE.

| GOLD.                        |         |   |         |
|------------------------------|---------|---|---------|
| California clean, \$ oz..... | \$17 60 | @ | \$17 65 |
| Spanish Doubloons.....       | 16 75   | @ | 16 75   |
| Patriot Doubloons.....       | 15 75   | @ | 15 80   |
| Sovereigns.....              | 4 86    | @ | 4 88    |
| Guineas.....                 | 5 00    | @ | 5 00    |
| American, new.....           | 1 00    | @ | 1 00    |
| American, old.....           | 1 06    | @ | 1 06    |
| Portuguese.....              | 1 00    | @ | 1 00    |

## SILVER.

|                        |          |   |          |
|------------------------|----------|---|----------|
| American Dollars.....  | 1 03 1/2 | @ | 1 04     |
| American Halves.....   | 1 03 1/2 | @ | 1 04 1/2 |
| Spanish Dollars.....   | 1 14     | @ | 1 14     |
| Spanish Quarters.....  | 1 00     | @ | 1 01     |
| Mexican Dollars.....   | 1 05 1/2 | @ | 1 05 1/2 |
| Five Franc pieces..... | 97       | @ | 97 1/2   |

\*The standard English value attributed to the Sovereign is \$4.4, in London. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin.

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAITE, STOCK BROKER, LON.  
Dec. 1, 1855.

|                                                      |     |     |
|------------------------------------------------------|-----|-----|
| Belvidere, Del., guar. 1st mort., conv.....          | @   | 87  |
| Chicago & Rock Island, Mort., conv. 1858.....        | "   | "   |
| Cin. Ham & Dayton, 2d mort.,.....                    | "   | 80  |
| Erie, 3d Mortgage, 1883.....                         | 85  | 86  |
| " Sinking Fund.....                                  | 82  | 83  |
| " conv. 1862.....                                    | 76  | 78  |
| Grand Trunk (Canada) Debenture.....                  | 85  | 90  |
| Great Western " conv.,.....                          | 116 | 120 |
| " " non-conv.,.....                                  | 102 | 104 |
| Illinois Central, 1st Mort., 7s.....                 | 74  | 76  |
| " " with option 70 per cent.....                     | 77  | 87  |
| shares till Jan. 1858.....                           | "   | "   |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill. Cent..... | "   | "   |
| Little Miami 1st Mort. not conv. 6s.....             | "   | "   |
| Marietta and Cincinnati, 1st Mort.,.....             | "   | 80  |
| Michigan Central, conv., 8s, 1860.....               | 93  | 95  |
| do do 1869.....                                      | 94  | 96  |
| N.York Central. No Mort. Not conv., 6s 80            | 82  | 82  |
| " conv., 7s.....                                     | 94  | 96  |
| Ohio and Mississippi, 1st Mort.,.....                | "   | "   |
| Ohio and Pennsylvania, Income 1872.....              | 79  | 81  |
| Panama. No mort. conv. 1866.....                     | 92  | 94  |
| Pennsylvania, 1st Mort., conv.,.....                 | 88  | 89  |
| " Sterling, 2d Mort.,.....                           | 88  | 90  |
| Stenheville and Ind., 2d Mort.,.....                 | "   | "   |

The quotations given are sterling quotations. The American value is to be obtained by adding on exchange generally about 10 per cent.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,

AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

## BONDS.

For the week ending January 2, 1856.

|                                                                                     |        |            |
|-------------------------------------------------------------------------------------|--------|------------|
| \$5,000 Little Miami R. Co., 6 per cent. Bonds due in 1853.....                     | 79     | (and int.) |
| 1,000 Ohio & Mississippi R. R. Co., 7 per cent. 1st Mortgage Bonds.....             | 67     | "          |
| 3,000 Covington & Lex. R. R. Co., 6 per cent. Income Bonds.....                     | 45     | "          |
| 2,000 Covington & Lex. R. R. Co., 10 per cent. Income Bonds.....                    | 62 1/2 | "          |
| 6,000 Cincinnati, Wilmington & Zanesville R. R. Co. 7 per cent. 2d mort. Bonds..... | 62     | "          |
| 1,000 Cincinnati Hamilton & Dayton R. R. Co. 7 per cent. Bonds, due in 1880.....    | 86     | "          |

## STOCKS.

|                                          |        |   |
|------------------------------------------|--------|---|
| 200 Shares Ohio & Miss. R. R.....        | 3 1/4  | " |
| 26 " New Albany & Salem.....             | 5      | " |
| 100 " Cin., Harrison & Indianapolis..... | 7      | " |
| 13 " Columbus & Xenia.....               | 82     | " |
| 59 " Marietta & Cincinnati.....          | 17     | " |
| 162 " Cin. & Chicago.....                | 10     | " |
| 50 " Covington & Lex. (30 days).....     | 82     | " |
| 60 " Little Miami.....                   | 87 1/2 | " |
| 28 " " (15 days).....                    | 88     | " |
| 28 " Mad River & Lake Erie.....          | 25     | " |
| 10 " Indianapolis & Cin.....             | 65     | " |

## THE MINING MAGAZINE.

N the *Mining Magazine* for November is commenced the re-publication of the new and invaluable English work of WILLIAM TURRAN, on "The Manufacture, Theoretically and Practically Considered," with all the large Plates of Furnaces and Machinery in operation. It is the only treatise on the subject, except Musset's papers, originally published half a century ago. The contents embrace descriptive details of the Ores, Fuels, and Fluxes, employed; the preliminary operation of Calcination; the Blast, Refining, Puddling, and Rolling Furnaces, Engines and Machinery; and the various processes in union; statements of quantities of material; period of time and amount of power consumed in the successive stages; cost of raising materials, and manufacturing crude and finished iron; and analytical researches into the causes affecting the Economy of Fuel in Blast Furnaces, &c., &c.

There are Twenty-Three Plates, all of which will be executed in the best style, and accompany the Text. The *Mining Magazine* is published monthly at \$5.00 a year. Each number contains from one hundred to one hundred and twenty pages, octavo, and is devoted to every department of Mining and Metallurgy. The fifth volume ends December 1855. The work of Turran would be completed in about twelve numbers of the Magazine. Its cost alone is nearly triple the subscription price of the Magazine.

In the December number commences the re-publication of the great work of POSSON on COAL MINING, translated from the French expressly for the Magazine, with all the splendid plates which accompany that work. It is one of the most important publications in regard to Practical Coal Mining knowledge. Its contents are briefly as follows: Chapter 1.—Practical Remarks on the Geology of Coal Regions—Formation of Hanging Strata—Search for Coal by Boring, &c. Chapter 2.—Means of Exploring Coal Strata by Levels—Shafts—their Working, Supporting, Restraining Water, &c. Chapter 3.—Natural and Artificial Ventilation—Illumination—Burning of Coal Mines, &c. Chapter 4.—Mining Work and its Processes, with Examples from numerous districts, Belgium, France, Germany, England, &c. Chapter 5.—Hauling and Hoisting in Horizontal and Inclined Galleries, in Shafts, on the surface, &c.—Means of Ascending and Descending Mines, &c. Chapter 6.—Drainage—Restraining Surface Water by means of Dams, &c.—also Pumps—Connecting Rods—Motive Machines, &c. Chapter 7.—Mining Economy—Materials—Fuels—Work and Wages of Laborers—Estimated Costs of Mines, &c. Chapter 8.—Explanations of operations of Surveying in relation to Coal Mines, &c., &c.

The Plates are very numerous and expensive, all of which will be executed in the best lithographic style for the Magazine.

In adding these new features to the Magazine, the aim of the Editor is, to place within the reach of the Mining and Manufacturing Interests, at a cheap price, recent and most valuable information which is of such a costly nature as not to warrant its re-publication in this country as an independent enterprise. The price of Posson's work in the French is nearly \$40.00.

The Magazine also embraces in its pages translations from the German, on the "Dressing of Ores in the Hartz Mines;" and we have in course of preparation, with all the plates, the most valuable Treatise on Metallurgy, by KELL, two parts of which have been issued in Germany. In its usual contents, which will not be diminished, it comprises informations of Mines, Mining Operations, &c., in every part of the country.

This Circular is respectfully addressed to you with the hope that you will encourage this important enterprise by your patronage. Early attention is necessary to secure the series, as we shall not stereotype, or print more copies of the Magazine than are required by Subscribers. Address W. J. TENNEY.

Editor Mining Magazine.

68 Broadway, New York.

Nov. 22

## Monetary and Commercial.

The first of January is over—the great settlement day of the year has passed with less stringency than was anticipated. Money is easier than at last dates, and has been so during the week, but without any change in the rates of interest.

Exchange is firm at 1/4 to 1/2 per cent. Gold is in fair demand at 1/2 and 3/4 premium. The great winter business—pork packing—continues in advance of last year at same dates. Arrivals are a little in advance of demand.

Stocks, during the holiday week, rarely present great activity. The transactions for the week are neither as numerous nor extensive as in previous weeks.

We subjoin our usual quotations:

We take the following from the Stock Circular of E. F. Satterthwaite, London:

"The Market for American Securities, has, during the past week, been very firm, at daily advancing prices, many parties appearing as buyers, now that fears of war with the United States are dispelled. The demand, however, has been chiefly for well-known Railroad Bonds."

Advices from the East are encouraging. The large

arrivals of gold, from California, most of which was in coin, and the favorable news from Europe, gave increased confidence. Rates are quoted at 6 to 7 per cent. for call loans, and 9 to 11 for paper on the street.

In Philadelphia, money is easier. In Boston the banks are discounting liberally. Outside rates range from 10 to 12 per cent.

## NEW YORK STOCK SALES, DEC. 29.

|                                         |            |
|-----------------------------------------|------------|
| \$5,000 Tennessee 6's 90.....           | 95 1/4     |
| 6,000 Indiana State Fives.....          | 51 1/4     |
| 8,000 Virginia 6's.....                 | 96 1/4     |
| 2,000 Missouri 6's.....                 | 88 1/4     |
| 6,000 Erie Bonds of '75.....            | 87         |
| 4,000 Hudson Convertible Bonds.....     | 63         |
| 5,000 Illinois Central R. R. Bonds..... | b30 81 1/4 |
| 2,100 N. Y. Cent. 7's.....              | 99 1/4     |
| 100 Shares Erie Railroad.....           | 50         |
| 100 " Chic. & R. I. R. R.....           | 85 1/2     |
| 70 " N. Y. Cent. R. R.....              | 91 1/2     |
| 50 " Mich. So. and No. Ia. R. R.....    | 92 1/2     |
| 50 " Panama.....                        | 103        |
| 100 " Ills. Central.....                | 96 1/4     |
| 300 " Clev. & Tol. R. R.....            | 71 1/4     |

## THE OPELOUSAS RAILROAD.

"The regular passenger and freight trains of the Opelousas Railroad, commenced running regularly to the Terrebone Crossing on Monday the 2d inst. This new link, three miles in length, completes the worst portion on the whole road from Algiers to Opelousas. The new connection is all important to the railroad, as it will secure to it the entire crop of the parish of Terrebone removed from the seaboard. There now remains but six miles of track yet to be laid to complete the road to Tigerville, which we learn is being pushed forward with the greatest alacrity, and the weather permitting, will be completed by the 15th of October, if not sooner."

## FORT WAYNE AND CHICAGO RAILWAY.

The annual meeting of the Shareholders was held November 15th, and the following gentlemen were elected to serve as directors for the ensuing year:

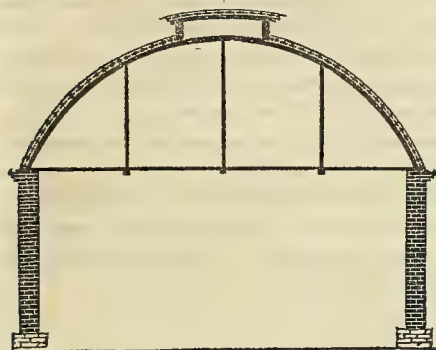
William B. Ogden, John Evans, Chicago; Samuel G. Haas, Valparaiso, Ind.; Amzi L. Wheeler, Plymouth, Ind.; William Williams, Warsaw, Ind.; Solomon W. Roberts, Pittsburg, Pa.; Samuel Hanna, Pliny Hoagland, and Joseph K. Edgerton, Fort Wayne.

Subsequently, Joseph K. Edgerton Esq., of Fort Wayne, was elected President, Judge Hanna declining. Mr. Edgerton is a man of great business experience, energy and perseverance, and if his efforts are properly seconded by the stockholders, it is though the will do a great deal towards the early completion of the road. The work is steadily progressing. Estimates to the amount of \$80,000 have been paid in the last two months. The track-laying will be completed and the road opened to Columbia (20 miles) by 1st January next, and the eastern division of the road from Fort Wayne to Plymouth, (64 miles), it is confidently expected will be open for business early in the Summer. At Plymouth this road connects with the Cincinnati, Peru and Chicago road; connecting at Laporte with the Michigan Southern and Northern Indiana road.—On the section of the Cleveland, Peru, and Chicago road of 28 miles, between Laporte and Plymouth, the iron is in part laid down, the track-laying is progressing, and that section of the road will be open early in the Spring, and in time to meet the Fort Wayne and Chicago road at Plymouth, thus comple-



ting a connection for the latter road with Chicago. A large business will flow over the road on completion of this connection.—The work west of Plymouth will be prosecuted with vigor. The Fort Wayne *Sentinel* states: Should the means placed at the disposal of the President be sufficient, the road will be extended to Plymouth early in the Summer, at which point a temporary connection will be made with the Peru and Laporte road, giving us a very good Chicago connection.—The whole line will be completed as early as practicable, and it will then, in conjunction with the Ohio and Indiana, form one of the best and shortest routes from Chicago to the East and if properly managed cannot fail to attract a large share of business and prove profitable.—*Fort Wayne Republican*.

## MOSLEY'S Tubular Wrought Iron ARCH ROOFS.



OFFICE, NO. 57, WEST THIRD ST.  
CINCINNATI, OHIO.

The supporting parts of these roofs are made in the same manner as Mosley's

### TUBULAR BRIDGING.

The tubes are light and of immense strength, capable of bearing twenty times more burden than will ever go upon them. Such roofs can be built in less than half the time, weigh much less, and cost less than any plan of Iron Supporting now in use, and no more than good wooden Trusses; besides, this plan of roofing gives a fine architectural appearance, is all iron, and proof against injury to walls, etc., by expansion and contraction. We are prepared to manufacture roofing, after this plan of any size and span, in any and all parts of the country, on the shortest notice.

MOSLEY, WINSTON & MOSELEY.  
THOS. W. H. MOSELEY,  
Sup. and Engineer.  
JOHN BAUDEN & CO  
Special Contractors

January 1st., 1856]

## Prosser's Patent. LAP-WELDED IRON BOILER TUBES,

Every article necessary to  
DRILL THE TUBE-PLATES

and to Set the tubes in the best manner. Tube Cleaners, Steel-Wire and Whalebone Brushes. Tubes for Artesian wells, Pump Shafts, Line Shafting, conveying Steam or Water, &c., &c., screwed together, flush on both sides, or with couplings either outside or inside; also expanded into Flanges. Free Joint Tubes for Core Bars, Railings, &c., Fall Lever Wrenches and Wrought Iron Blacksmiths' Tyes.

Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Tires, Plater's Rollers, Kife and Gun Barrels, Cannon, &c.

THOMAS PROSSER & SON,  
28 PLATT STREET, New York.

## ALBERT M. SMITH'S PATENT PREMIUM RECLINING & SELF-ADJUSTING CAR SEAT



For a Night and Day High or  
Low-back Seat, combined in one,  
PATENTED AUGUST 21, 1855.

It was awarded two first premiums, a Gold Medal, at the great Fair at the "American Institute," held at N. York, and a Diploma at the State Fair, held at Elmira, N. Y., 1855.

This valuable improvement is adapted and can be applied at a very trifling expense, to the ordinary seat now in use, without impairing its present qualifications as a day seat, and a new seat provided with it, and made in single seats, costs no more than the ordinary seat.

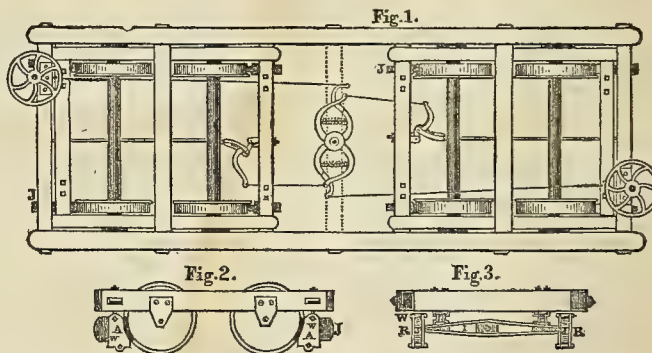
By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects

the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other.

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of **ALBERT M. SMITH, Patentee and Manufacturer,** dec20-ly 13 North St., Paul st., Rochester, N. Y., or **TAULMAN & LOW, 157 Broadway, N. Y.**

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (w) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

## Cincinnati, Hamilton, & Dayton R. R.

SECRETARY'S OFFICE, CINCINNATI,  
December 1st, 1855.

At a Meeting of the Board of Directors of this Company, held this day, a dividend of 5 per cent. on Stock, was declared out of the net earnings of the road to October 1st, 1855, payable to the Stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York on and after the 15th inst., fractional parts to be paid in cash, at the rate of eighty cents on the dollar, at the option of the Stockholders. The Transfer Books will be closed for ten days from this date.

Dec. 6-1m

FRANKS. BOND, Secretary.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.,** 9 South William street. 8 1m  
New York, Aug. 16th, 1855.

**D. D. MILLER,**  
Manufacturer of

LOCOMOTIVE, RAILROAD AND HAND  
LANTHERNS,  
190 Water Street New York.



**PRINTING.**

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

**DWELLINGS, STORES, WAREHOUSES,**  
and their contents,

**STEAMBOATS, BARGES,**  
and their Cargos,

Manufacturing Establishments,  
**Railroad Depots and Station Houses,**

at current rates. **L. A. OSTRON,**  
No. 6 West Third Street, Cincinnati.

**RAILROAD IRON.**

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via, Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY,** Quebec & Kingston, Canada. **BERRY & WALKER,** Liverpool, England. Kingston, C. W., Sept. 15, 1855.



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,

North-East Corner Fourth and Walnut Streets, over Ohio Savings Bank,

**CINCINNATI.**

**BANK NOTE ENGRAVING.**

**DANFORTH, WRIGHT & Co.,**

No. 25 West Third Street, Cincinnati.

Bank Notes, Drafts, Bills of Exchange,

**RAILROAD BONDS, & CERTIFICATES**

Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

**BANK NOTE**

**ENGRAVERS AND PRINTERS.**

Also, engraved in a style corresponding in excellence with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**

**BILLS OF EXCHANGE, CHECKS,**  
Drafts, Certificates of Stock and Deposit, Promissory Notes, Bill and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of **GEORGE T. JONES,**  
South-East corner of Main and Fourth Sts., Cin.

**MIDDLETON, WALLACE & CO.,**  
**LITHOGRAPHERS & ENGRAVERS,**

No. 115 Walnut St., Cincinnati.

**RAILROAD BONDS AND CERTIFICATES OF STOCK**

Beautifully executed and at moderate rates.

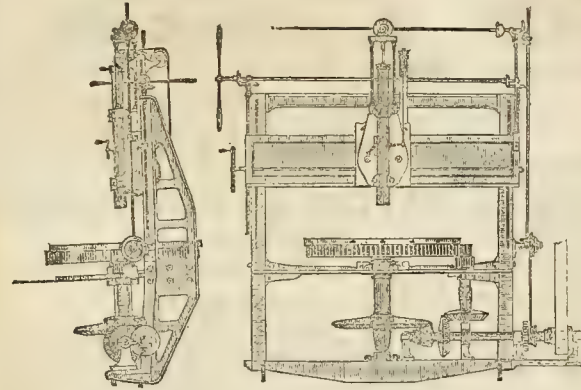
**Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.**

Engraved in all styles and on short notice.

**NILES' WORKS.**

**FOUNDERS AND MACHINISTS,**

**EAST FRONT STREET, CINCINNATI,**



Manufacturers of

**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL**

**FACE PLATE LATHES,**

OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

**PLANING MACHINES**

**LARGE & SMALL.**

**MARINE & STATIONARY ENGINES.**

**BOILERS OF EVERY DESCRIPTION.**

**HEAVY FORGINGS,**

**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**

16th Street and Pennsylvania Avenue,

**PHILADELPHIA, PA.,**

Manufacture, in addition to their well known class of

**ENGINEERS' & MACHINISTS' TOOLS,**

SHAFTING, GEARING,

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING**

**HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad and Locomotive Shops, Factories, etc.

— ALSO —

**CAST IRON TURN-TABLES,**

Of any required diameter and strength; made upon a New and Economical Plan, and fitted with

**PARRY'S PATENT**

**Anti-Friction Pivot Box.**

— ALSO —

**TRANSFER AND DROP TABLES,**

Suited for Locomotive and Repair Shops, Car Factories, etc., etc.

**London Agency for Sale of Bonds &c.**

Messrs LANCE & Co., are making more generally known in England, the great advantages of American securities for investment.

During the present year Messrs Lance and Co. have disposed of a large amount of American and Canadian Railway Bonds, and are fast extending their connections. They will be happy to correspond with parties having good American Securities for sale.

Messrs LANCE & Co. have had experience in the purchase and shipment of Iron, and offer their cooperation to those about to negotiate for the disposal of Bonds and the purchase of Rails.

P. S. Presidents of Railway Companies are requested to favor Messrs L. & Co. with Exhibits or Reports of their Companies as published.

10, Regent street, Waterloo Place, London,  
October 1855. nov. 15-6m.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines, 28 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS,** President.

Also, for sale, two Twenty Horse Power Stationary Engines. Aug. 9-4t

**Railroad Printing.**

**WE** have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply any demand at Short Notice and in Unequalled Style.

Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

**T. WRIGHTSON & CO.,**

Railroad Record Office, 167 Walnut St. Cin



## PERU & INDIANAPOLIS R. R.

*Peru, Logansport, Wabash, Rochester, and Indianapolis.*

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers.

Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Frt. Ag't.  
Indianapolis, October 1, 1855.

## THE KENTUCKY MILITARY INSTITUTE.

DIRECTED by a Board of Visitors appointed by the State, is under the superintendence of Col. E. W. MORGAN, a distinguished graduate of West Point, and a practical Engineer, aided by an able Faculty.

The course of study is that taught in the best Colleges, with the addition of a more extended course in Mathematics, Mechanics and practical Engineering and Mining Geology; also in English Literature, Historical Reading, Book keeping and Business Forms, and in Modern Languages.

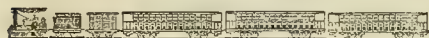
The seventeenth semi-annual session opens on the second Monday in September, (10th September, 1855). Charge \$102 per half yearly session, payable in advance.

Address the Superintendent, at "Military Institute, Franklin county, Ky.," or the undersigned,

P. DUDLEY,  
President of the Board.

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## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1855. Sept. 29-1f.

## Terre Haute & Richmond R. R.



### Summer Arrangement.

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)

Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to S. Louis 28½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.  
MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 23, 1855 S. HUESTIS Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS IN OHIO.

Time as short to the Eastern Cities, as well as to Chicago and St. Louis, and Fare as Low as by any other Routes.



Great Miami, [C. H. & D.]

MAD RIVER AND LAKE ERIE,

CLEVELAND & TOLEDO,

AND

## EATON & RICHMOND RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

### FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo and Chicago. (This train starts by Columbus time, which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

### SECOND TRAIN.

Indianapolis Express, at 6 A. M., for Indianapolis, and all points North and West.  
(This train also starts by Columbus time.)

### THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with steamer Bay City for Detroit; with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua.

### FOURTH TRAIN.

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

### FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

### SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

### SEVENTH TRAIN.

Hamilton Accommodation at 5.30 P. M.  
RETURNING.—Trains leave Dayton as follows: at 4.50 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M.  
LEAVE HAMILTON at 5.54, 6.45 and 9.00 A. M., and 12.30, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Sup't. C. H. & D. R. R.  
E. F. OSBORN, Sup't. M. R. & L. E. R. R.  
E. B. PHILLIPS, Sup't. C. & T. R. R.  
D. M. MORROW, Sup't. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## IRON BOILER FLUES.

PASCAL IRON WORKS.

## MORRIS, TASKER & MORRIS,

Manufacturers of

## LAP-WELDED BOILER FLUES,

1½ to 7 inches outside diameter, cut to definite lengths, as required.

## WROUGHT IRON WELDED TUBES,

From ¼ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,

LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....50

" Terre Haute.....50

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

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## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

## GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,

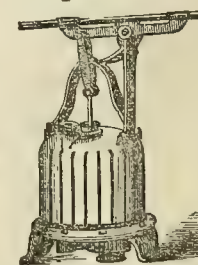
CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION & FORCE PUMP

AND

## Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fine Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y



**Baltimore & Ohio Railroad.**

**380 MILES BETWEEN WHEELING AND BALTIMORE.**

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freight are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellville on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
**Through Tickets from all Parts of the West,**  
ARE NOW SOLD IN  
Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

**AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED**  
**For Sending Travelers Direct to**  
**WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and**  
**other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**  
The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

**J. B. FORD** is the Company's Receiving Agent at Wheeling.  
**W. M. G. HARRISON,** President, **JOHN H. DONE,** Mast. of Transportation, Baltimore.  
je. 84

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

**ON MONDAY, JULY 16TH, AND UNTIL FURTHER**  
notice, the Trains will depart from Wood street station as follows:

**FOR LOUISVILLE**—At 8.30 A. M., and 3.45 P. M.  
**FOR INDIANAPOLIS**—At 6.15 A. M. and at 4 P. M.  
**FOR LAWRENCEBURG AND AURORA**—At 8.30 A. M., 3.45 P. M., and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front Street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4, East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co., S. S. POST.

Chief Engineer and Superintendent.  
Omni-buses run from the principal hotels, and call on orders left at the Ticket Office.

Omni-buses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.  
**W. S. BABCOCK,**  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

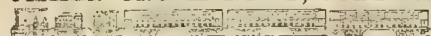
aug. 2.

## STEREOTYPE FOUNDRY, AND AGENCY OF L. JOHNSON & CO.'S TYPE FOUNDRY.

**C. F. O'DRISCOLL,** (Successor to A. C. JAMES,) is prepared to execute in the best manner all kinds of

**STEREOTYPING,**  
including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of **Card and Job Type, Cuts, Plates, &c., &c.** from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order **PRINTING MATERIALS** of every kind.

**AT THE FOUNDRY PRICES.**  
**C. F. O'DRISCOLL,**  
168 1-2 Vine Street, Cincinnati, O.

**1855. New Arrangement, 1855****COMMENCING MONDAY, JULY 16.**

## LITTLE MIAMI RAILROAD, VIA COLUMBUS.

**FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M., 10:20 A. M., AND 6 P. M.**

*The Quickest, Shortest, and Most Direct Route, both to and from Cincinnati and the East.*

**LAI D WITH HEAVY T IRON.**

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.

"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the E. St.; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route. **CINCINNATI TO CLEVELAND in 8½ hours.**  
**CLEVELAND TO CINCINNATI in 8½ hours.**

**Time via Little Miami Route from Cincinnati to**

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3½ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 14½ "     |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30½ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 6 "       |
| To Philadelphia in..... | 14 "      |
| To Wheeling in.....     | 30½ "     |
| To Baltimore in.....    | 10 "      |
| To Washington in.....   | 26½ "     |
| To Steubenville in..... | 29 "      |
| To Cincinnati in.....   | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburgh, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

**FIVE DAILY TRAINS.**

**FIRST TRAIN**—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

**SECOND TRAIN**—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburgh; Lancaster, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers **QUEEN OF THE WEST** and **CRESCENT CITY**, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

**THIRD TRAIN**—Wheeling Express, leaves Cincinnati at 10:30 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

**FOURTH TRAIN**—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Chillicothe, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

**FIFTH TRAIN**—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on **SUNDAY**, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.

**P. W. STRADER, General Agent**

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

**Covington and Lexington Railroad.**

**DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.**

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

**THROUGH TICKETS**, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terrehaute, Vincennes and Lafayette.

**THROUGH TICKETS TO LOUISVILLE**, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, **FOUR DOLLARS.**

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

**TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED!** On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

The **EXPRESS TRAIN** leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at **LEXINGTON** at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryansville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barboursville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

The **ACCOMMODATION TRAIN** leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.20 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

**FREIGHT TRAINS** will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

**RATES OF FARE.**

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthia.....    | 2 00   |

**FOR THROUGH TICKETS**

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

**C. A. WITHERS, Superintendent.**

**P. W. STRADER, Gen'l Agent,**  
The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw Madison and Scott, Covington.

**CLAYTON & GRANT.**

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road. nov. 15\*

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

**VIA LAWRENCEBURG.**  
In connection with the **Ohio and Mississippi Railroad**. Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.

Office, 31 Main Street, west side, 5 doors north of Madison House. **SIDNEY RICE,** Agent.

**W. G. ATKINSON,**  
Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

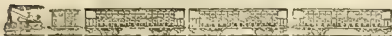
**RAILROAD** routes located, planned, and estimated Maps and Reports furnished; Researches made for Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared. mar. 17



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

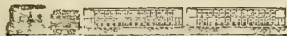
Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNYS &amp; PECK,

je. 9-14 Louisville, Ky.

**Norris' Locomotive Works,****PHILADELPHIA.**

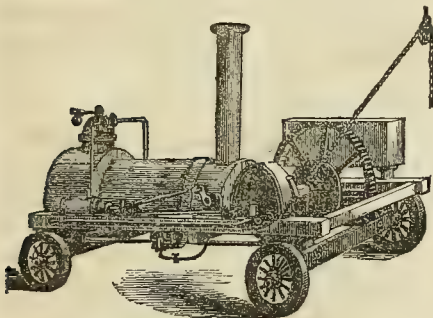
ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size,

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

jy. 27.

RICHARD NORRIS &amp; SON.

**A. L. ARCHAMBAULT'S**  
**PORTABLE STEAM****HOISTING & PUMPING**  
**ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Diving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug 2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

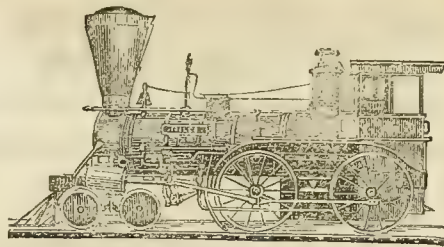
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DURAND, FULTON and TILTON. Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.

feb. 13 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs one tenth part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

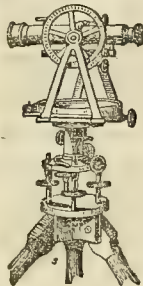
The first railroad men in the country have certified that Lightner's Improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.****T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF  
**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

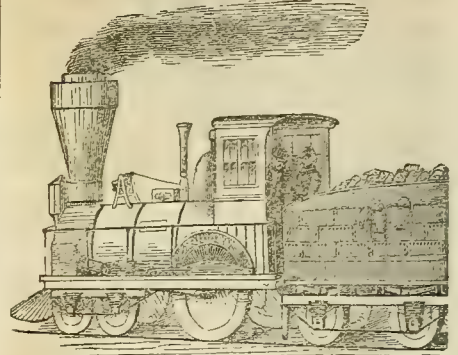
CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights. (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machine Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap. 20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness. Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. &amp; E. Wason, Springfield, Massachusetts.

**Railroad Car Findings****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

Wheels &amp; Axles, Jaws, Boxes, and Casting Fit

**Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Burrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russia, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Flat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

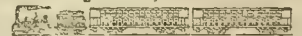
Late Davenport &amp; Bridges, Car Manufacturers.

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

to c

**CAR MANUFACTORY,**  
**Dayton, Ohio.**

F. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

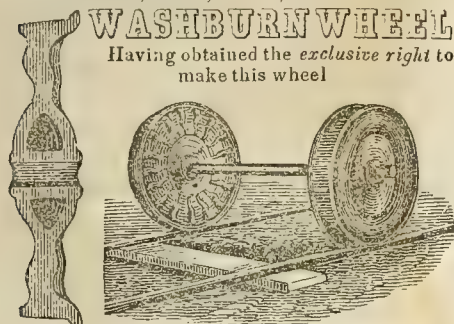
Dayton, Jan. 24th. 1853.

Jan. 25-†



### FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati.— Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

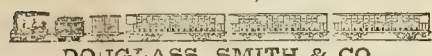


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

### MUSKINGUM WORKS, ZANESVILLE, OHIO.



**DOUGLASS, SMITH & CO.**  
WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

**Railway Car Manufacturers,  
MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

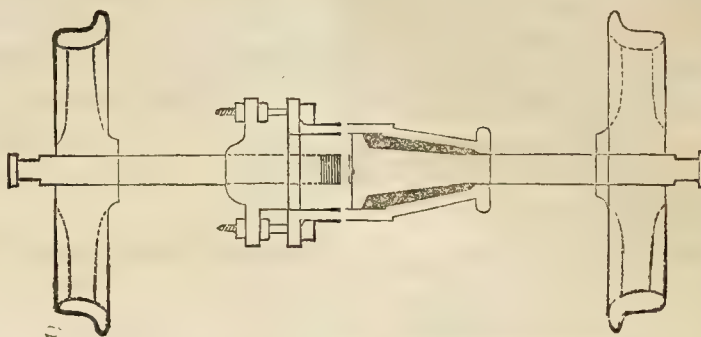
We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16+\* **JOSEPH DAVENPORT.**

### S. C. THOMSON & CO., MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
W. 124 **NEWARK, N. J.**

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

July 10+

**SAMUEL L. DENNEY,**

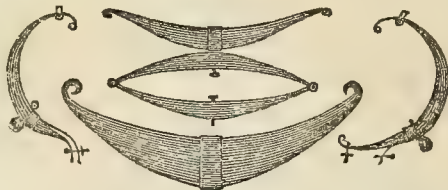
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**

Gap, Pa.

### MCDANIEL & HORNER,

LOCO-  
MOTIVE



AND CAR  
SPRING

### MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

#### References.

**NORRIS BROTHERS,** Locomotive Builders, Philad.

**A. C. GRAY,** Prest. New Castle Manuf. Co.

**U. WELLS,** R. R. Car Manuf. Petersburg, Va.

**I. R. TRIMBLE,** Supt. Philad. R.R. Co.

May 19.

**M. B. MILLEN,** Gen. Supt. C. R. R. Savannah, Ga.

**EMERSON FOOTE,** Supt. M. & W. R. R. Macon, Ga.

**THOMAS DOUGHERTY,** Master Mach. do.

**THOS. SHARP,** Supt. R. F. & P. R. R. Richmond, Va.

### DURYEE & FORSYTH'S

#### PATENT

### PLATFORM SCALES.



WE ARE AGENTS FOR DURYEE & FORSYTH'S UNRIVALLED PLATFORM SCALES, FIRE PROOF SAFES, TRUCKS, LETTER PRESSES, AND SUGAR MILLS.

We deem it unnecessary for us to say a word in their commendation, as their reputation for accuracy, adaptation, and durability, is too well known to require it.

**HEWSON & HOLMES,**  
53 and 55 Walnut Street.

### THOS. M. CASH,

### PHILADELPHIA RAILWAY AGENCY.

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 20, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

#### REFERENCES.

**Richard Norris & Son,** Locomotive Builders, Philad'a.

**Wm. D. Lewis,** Esq. Pres't Catawissa R. R. Co. "

**Charles H. Fisher,** Esq., " "

**Jno. Caldwell,** Esq., Pres't S.C.R.R. Co. Charleston, S.C.

**Pinckney Huger,** Esq., Pres't. N. E. R. R. Co. "

Oct. 13-14.



## Parry's Anti-Friction Box, PATENTED IN 1833.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,

90 South Fourth Street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.  
OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENNA. R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH P. A. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Gen. T. PARRY, Esq.—Dear Sir—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and a step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

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A. L. ACKERMAN, PROPRIETOR

Aug. 9 ly

## SODA WATER APPARATUS!

THE ONLY PATENT CAST IRON  
SODA WATER APPARATUS  
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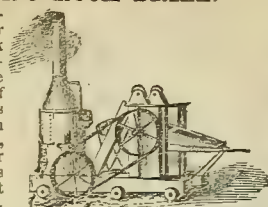
WILLIAM GEE,

Dec. 5, 1855-ly

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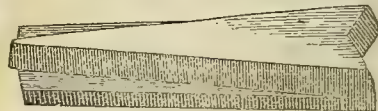


A silver medal, the highest prize, was awarded these Machines at the World's Fair. Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

## Important to Railroad Companies, etc.



### Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

### RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

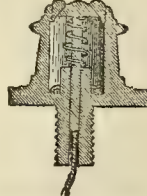
The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,

15 Walnut St., Cincinnati.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

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# Railroad Record.

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CINCINNATI:

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### MEMORIAL FOR A PACIFIC R. R.

We would again remind our friends of the memorials already sent out for this great national project. Each day with the increasing importance of our Pacific possessions the subject of uniting them in reality to us by a railroad becomes one of greater importance.—Again we say send in your signatures, either to us, or to your Representatives in Congress. Give us a road to the Pacific, where it can be got, soonest and cheapest.

THE PEN AND LEVER.—We are in the reception of the first number of this sheet.—Our readers will remember our publication of its prospectus, some weeks ago. The *Pen and Lever* is an inventor's paper, got up in the style of the *Record*, and will make a good volume for binding.

VOL. 3.—No. 46.

### ANNUAL REPORT OF THE JAMES RIVER AND KANAWHA CANAL COMPANY.

We have been unable, till the present moment, to examine the very able reports and documents, submitted at the annual meeting of the James River and Kanawha Canal Company. We return to the subject now, not merely on account of their intrinsic merit, but because the valley of the Ohio and those of Kanawha and James Rivers are so intimately connected, that nothing of this sort ought to be overlooked. Indeed the valley of the Kanawha, and the whole of Virginia, to Lynchburg, is but part and parcel of the Ohio valley. Yet, we apprehend, that but few persons, in this region, know anything about the Virginia Improvements for Internal commerce. We have New York and the Lakes, ding dong'd into our ears, like the ringing of a school-bell, till we have almost forgotten that the valley of the Ohio has many very distinct and powerful interests and connections entirely distinct from those of the Northern Routes. That Virginia and Kentucky are where they are, in commerce, is due, in no small degree, to their not having availed themselves of the powerful machinery of the press for commercial purposes. They have considered the press as having no office, but that of haranguing on politics, much of it of not the least real interest to the people. In commerce, as in wars of glory, the great point to be gained is reputation—fame. This is to be gained, not as people used anciently, and modestly to suppose, by leaving others to blow the trumpet—not at all! But, to blow it yourselves right lustily and boldly, proclaiming yourselves the undoubted heirs of the wisdom of Solomon and the glory of Tyre. This is the custom, at New York and Boston, and need not be difficult to imitate in Virginia whose politicians are bred to it from their youth upwards. These remarks, we desire to be understood, as *aside*.

Within two or three years, the Pennsylvania Central Road, has forced the New York canal, railroads and all, to acknowledge the Pennsylvania lines and their competing power. At this moment, the Baltimore & Ohio R. R. is doing the same thing, and when the direct connection is made, *via* the Marietta Railroad at Parkersburg, that line, also, will force its full share of trade from the Northern routes. Why should not Virginia have her direct route, from Cincinnati to Richmond? Considered geographically, it is quite possible to make a nearer and more direct line of transportation, to tide-water, through Virginia than on any other line, except, perhaps, Charleston, S. C. The cities of the Ohio valley (especially Cincinnati and Louisville), are central, and therefore look with equal favor upon any of the radial lines of commerce, which will carry their products to any of the great sea-board markets. Their condition is very different from that of a *flank* city, whose

interest lies in proceeding only from *one half the circle*. The Ohio valley, therefore, looks with great interest upon any route which will connect it with the Southern Atlantic.

The documents before us consist of the reports of the President and Agents of the Company; and a very able and interesting document from Mr. E. Kenna, on the part of the stockholders. From these papers we gather the following information:

1. The JAMES RIVER & KANAWHA CANAL, consists of about 200 miles of water navigation (canal), between Richmond city and Buchanan (Bottelourt co.), the whole line lying in the valley of the James River.

The Canal Company was chartered in 1785, having been originally suggested, we believe by Washington, and being altogether the oldest of all the associations in the United States for Internal Improvement. The present company, however, dates from 1835, the present being its 21st report. Looking to the report of the President, and also to that of Mr. Kenna, we judge the present desire of the Company is to finish the Canal to Covington (Allegheny co.), and improve the navigation of the Kanawha, so as to make a *water line of communication*, from Cincinnati to Richmond. This necessarily creates a controversy, in Virginia, between the Canal Company and the *Covington and Ohio Railroad Company*. In this controversy we shall not meddle, barely remarking, that New York has the Erie Canal and the Central Railroad running along side of one another, and the last year's experience has proved the great advantage, if not absolute necessity of both. To the valley of the Ohio, the result, on either plan, will be nearly the same; for, by either, a *direct, practical communication* between Cincinnati and other towns of the Ohio and Richmond, Virginia, will be made.

2. Having thus stated the present position and views of the Canal Company, we shall proceed to give some of the results of the Canal Commerce.

1. TONNAGE AND RECEIPTS.—These we give only for the last five years:

|              | Tonnage. | Gross receipts. | Net receipts. |
|--------------|----------|-----------------|---------------|
| In 1851..... | 174,614  | \$222,133       | \$157,966     |
| 1852.....    | 210,040  | 277,448         | 182,190       |
| 1853.....    | 231,032  | 293,512         | 170,368       |
| 1854.....    | 225,612  | 211,308         | 160,655       |
| 1855.....    | 201,721  | 234,009         | 107,286       |

These results show that the business of the James River Canal is really of great magnitude and importance. To its proprietors the the Canal is not very valuable; but, to the country, through which it passes, it is of the utmost consequence. This will appear more plainly from the following table of products carried upon it:

2. PRINCIPAL ARTICLES TRANSPORTED ON THE JAMES RIVER & KANAWHA CANAL, FOR 1855.



|                       |         |
|-----------------------|---------|
| Tobacco—hhds.....     | 12,876  |
| —Boxes.....           | 52,689  |
| —hhds. of Steams..... | 1,561   |
| Flour—bbls.....       | 106,881 |
| Wheat—bushels.....    | 462,144 |
| Corn—bushels.....     | 12,943  |
| Coal—tons.....        | 21,162  |
| Salt—sacks.....       | 34,341  |
| Plaster—tons.....     | 8,109   |
| Guano—tons.....       | 7,696   |

These are the principal articles, though there were various others in smaller quantities. It will be seen that the quantity of tobacco is very great, and that the wheat (reducing flour to bushels), amounts to a million of bushels.

From all this, it appears that a large and valuable business, in internal commerce, is done in a channel which our commercial men have not even recognized. The value of this commerce amounts to nearly *twenty millions of dollars per annum*.

Mr. Kenna's very interesting report (a part of which we see also in DeBow's *Review*) is occupied chiefly with these facts and arguments, which go to prove that the Canal is the best mode of Commercial connection between Richmond and Cincinnati. We have no space for an analysis of it, which we should like to have made. The subject of a commercial connection, between the Ohio valley and the Atlantic, through Virginia, is one of deep interest, and to which we shall again refer, in some future number.

#### TIME AND THE RAILROADS.

In modes of conveyance, where everything connected with either safety or speed depends on accurate time, it is truly wonderful that some simultaneous effort has not yet been made to secure for all responsible officers correct and reliable time-keepers. That the most important requisite for a conductor or an engineer—the possession of a good watch, is left either to caprice or circumstances, when the lack of it is too often the cause of fearful and tremendous accidents, is passing strange—it is worse than this, it is culpably vicious. How many are there of those who have charge of railroad trains who would be willing to stake even an hour's existence on the general accuracy of his time-keeper? And yet day after day they pass over the same road, meet the same dangers and risk their own and other lives to a most fearful and horrible death. And all this for want of a suitable time-keeper.

On Monday, Dec. 31, a frightful collision took place on the Ohio & Pennsylvania R. R., two miles east of Darlington, by which three persons were killed, and seventeen wounded. Two locomotives were destroyed and several cars. The cause assigned was the watch of the conductor of the freight train. We quote from the paper from which we derive our information:

**THE CAUSE.**—The watch of the freight conductor, Mr. Croft, was, by some unaccountable means, about fifty minutes too slow,

and by a criminal negligence, entirely unpardonable, was the only time piece on the train. Being led astray by his watch, he thought he could make New Brighton before the Express was due, by fast running, and was, therefore, urging forward at high speed, on the freight train.

This rickety watch was the only time piece on the train. It is stated that the conductor compared his watch a few miles back, at Columbiana, and it was right. Now had engineer and conductor both been supplied with good watches, it is not at all probable that this accident would have occurred. Let us see how much the road would have saved by supplying its engineers and conductors with good watches. This road is 187 miles in length; suppose now, it has 60 locomotives, there will be perhaps 60 engineers; let us assume that it has 60 conductors.—There will then be 120 persons to be supplied with watches at about \$100 each.

120 watches, at \$100, - - - - \$12,000.

This then would have been the first cost of supplying the whole responsible force of this road with reliable watches. Let us now examine the loss by the accident:

|                                           |                 |
|-------------------------------------------|-----------------|
| 2 locomotives @ \$10,000.....             | \$20,000        |
| Assume 3 cars @ \$1500, average.....      | 4,500           |
| Damages to 3 persons killed @ \$5000..... | 15,000          |
| 17 injured @ an average of \$1000.....    | 17,000          |
|                                           | <b>\$56,500</b> |

The lowest probable loss to this road will be \$56,000, or more than four times as much in one accident as would have supplied watches which could have been depended on for ten years.

But the objection will be raised that it is difficult to obtain a reliable watch. The answer is, let the Superintendent or President test watches of various makers, and satisfy himself which is the best. This is precisely what we have done, and we believe we have a watch that can be depended on. To satisfy ourselves, we tried four different styles: an ordinary escapement, a Tobias Lever, a Duplex, and one of the Bradley Brothers' Railroad time-keepers. The common escapement we found utterly unreliable. The Tobias Lever did not satisfy us. For some reason it varied in its rate. The Duplex was liable to stop, although keeping good time when running.

The last of the four, the Railroad Time keeper, is a "quick train" lever watch of moderate size and full jewelled, costing, in silver cases, about \$100; in gold cases about \$140. This watch we have tested in several journeys to the east, by office use, and found it to run uniformly. If officers of roads will adopt our plan and try different makers, till they obtain a reliable watch and then supply their engineers and conductors, they will save immense losses and do a good deed to humanity.

We will in future numbers give some articles on the mode of ascertaining true time by astronomical observation.

#### AXIS AND MOVEABLE CENTER OF THE UNITED STATES.

We insert with pleasure, the following from Mr. Scott of Toledo. We must here remark, that he has changed entirely, the problem we presented. Our problem was confined to the United States, and to the zone between 79 and 91 degrees of Longitude; that is, to the movement in the United States, between the crest of the Alleghenies and the Mississippi. To include the basin of the St. Lawrence, is an entirely different problem. Still, we do not know how Mr. Scott gets his figures. In some other number of our paper, we shall consider Human Movement, in North America, which will be a more comprehensive problem:

**E. D. MANSFIELD, Esq.**—Your article on the Axis and Moveable Center of the United States, is quite interesting to me. The philosophy seems sound, but the facts are arranged, it seems to me, in a way to produce a false impression.

The two great basins of the St. Lawrence and the Mississippi are in the same great plain of North America; and, although portions of the former are under a different government; yet, for commercial purposes, they are more closely united than are the two sides of the Apalachian mountains, within the United States.

For the purpose of getting at the true central line of movement, westward, it will not do to ignore topographical facilities and obstructions; nor will it answer to leave out of view the bearing of the great industrial power beyond the Atlantic, which bears chiefly through New York, on all the great commercial operations of our central valley.

So far as the present population of towns and cities and their present rate of increase goes to prove the line along which the center of commercial power is tending, your figures or my calculations are quite wrong.

I make the present population of towns and cities situated in the two basins, above latitude 40 deg., and containing 5,000 and upwards, to amount to, in round numbers, 935,000.

|                                                                                                                                                                                                                  |         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Those below lat. 40 deg., including Mobile and Montgomery, to.....                                                                                                                                               | 790,000 |
| Excess above 40 degrees.....                                                                                                                                                                                     | 145,000 |
| Pittsburg, Wheeling and Steubenville, though above the 40th parallel, have, by means of the Ohio, at present, their most natural connection with the cities below. Their present population is estimated at..... | 135,000 |

These deducted, there is left excess for the line north of 40 degrees..... 10,000

The great line of trade and travel between the East and West, are now along the lakes and their borders. The enlargement of the Erie canal and the construction of new railroads will soon make it apparent to everybody that the orbit of movement lies north of latitude 40 degrees.

If commercial centers of less than 5,000 in-



J. W. SCOTT.

We are now advised that Ludlow's oil is a combination of fine Lubricating oils, possess-



ing the several desired virtues, *only a small per centage being Rosin oil*, all distilled together and rendered purely non-gelatinous by a secret chemical process. Thus securing to this combination, in one oil, all the desirable properties of several oils.

We find by actual test on our own machinery, and from the certificates of others who are using it, that this oil is purely non-gelatinous, leaving the journals perfectly free from gum. It is also very durable—the globulous particles being unmixed with any portion of glutinous matter, are much more tenacious, and cling to the journals until the lubricating virtues of the oil are actually worn out.—Again, it will not chill in any climate, remaining perfectly limpid exposed to this very cold weather. Thus, while the oil is very much improved by compounding and distillation, it is reduced in price about 50 per cent.

THE ANTHRACITE COAL TRADE OF PENNSYLVANIA for 1855 being now closed by the leading transportation companies, the Pottsville *Miners' Journal* gives the following statement of the coal tonnage of the year from the principal regions:

|                          | 1854.     | 1855      | Incr.   |
|--------------------------|-----------|-----------|---------|
| Schuylkill Railroad..... | 4,997,854 | 2,212,784 | 224,930 |
| Canal.....               | 907,354   | 1,104,166 | 196,812 |
|                          | 2,895,208 | 3,316,950 | 421,742 |
| Lehigh.....              | 1,246,418 | 1,275,986 | 23,569  |
| Delaware & Hudson Co.... | 440,944   | 223,000   | 88,056  |
| Penna. Coal Co.....      | 596,643   | 564,000   | 67,352  |
|                          | 5,079,21  | 5,633,936 | 604,718 |
|                          |           | 5,079,213 |         |

Increase from the principal regions... 684,723

According to the same authority the whole supply of anthracite this year will be about 6,300,000 tons, and the increase from all the regions will be somewhere near 650,000 tons, or about the same increase over the last year as the latter was over the preceding one.

The Philadelphia *Bulletin*, in giving these items, says "it is to be regretted that there is no method of ascertaining the amount and value of the bituminous coal dug out and sent to market from the western parts of the State. If this could be known, the money given to Pennsylvania in exchange for her coal would appear, perhaps, fifty per cent. greater." It has been ascertained, and the amount stated on various occasions. It is, in round numbers, about 1,000,000 tons, worth on the spot about \$1,250,000.

As soon as possible after the close of the present year, the exact figures, relative to this trade will be obtained and published; but the grand total, we are able to say, is indicated in the amounts we have given above.

#### CIN. AND MARIETTA R. R.

Last week commenced a new era in railroading, at Cincinnati. A considerable quantity of pig iron arrived from Vinton county, on the Cincinnati and Marietta Railroad. At the same period commenced a passenger

business, by the same road, between Cincinnati and Portsmouth, the river being obstructed by ice.

## Railroads.

### SECRETARY OF WAR'S REPORT ON THE PACIFIC RAILROAD.

Mr. Davis, Secretary of War, in his annual message, has made an extensive, and favorable notice, of the Pacific Railroad scheme. He has made two points which it will be found impossible to get over; one, that the cost of transporting men and munitions of war, by land, to California, in case of war, would be immense; and the other, that the surveys and explorations of routes are decidedly in favor of the Texas, or 32 degrees parallel. The facts, which he gives, under these heads, we copy for the information of such of our readers as take an interest in the plan of a Pacific highway.

The Secretary states, from facts, as he thinks established, which the reader will see, in detail, below:

1st. That the Government Surveys have established the *practicability* of a Railroad to the Pacific.

2d. That the route of the 32 deg. parallel, is apparently the best.

3d. That what we call the Colorado Desert, is no desert, but a region of fertile land, and, that by new surveys, the amount of fertile land, between El Paso and the Pimas village is found to be nearly double what was supposed.

4th. That it would cost the Government about *twenty millions*, in time of war, to carry its men, munitions and provisions there.

These are very important facts and will go far towards creating a government interest and aid for a Pacific Railroad.

The part of the Secretary's Report, in relation to this subject, we give below:

The reports of the officers employed under the appropriations made for explorations and surveys to ascertain the most practical and economical route for a railroad from the Mississippi river to the Pacific Ocean, were submitted to Congress on the 24th of February last, with a report from this Department, giving a general sketch of the country over which they extended; a recapitulation of their results, and a comparison of their distinguishing characteristics, from which it was concluded, that of the routes examined, the most practicable and economical was that of the 32d parallel. A report is herewith submitted from the officer in this Department charged with the revision of the work of the several parties, and I refer to it for additional information, derived from materials collected on a further examination of them by himself and the several officers who made the particular surveys, as well as for the results of explorations carried on during the past year. When the report was made in February last, many of the maps, drawings and scientific papers intended to form part of the report, and which could only be prepared after an elaborate examination of the materials collected, had not been completed for want of time, and it became necessary to substitute hastily prepared drawings

and preliminary reports. This was particularly the case with regard to the work on the route of the 35th parallel. A minute examination of the material collected in that survey, has resulted in showing the route more practicable than it was at first represented to be, and in reducing to nearly one half the original estimate of the officer in charge of the survey, which indeed seemed, when they were submitted, to be extravagant, and were noted in the report from this Department as probably excessive.

Another feature of interest developed in the course of the further examination of the work on the route of the 32d parallel, is that the Colorado desert, which is traversed by the route for a distance of 133 miles, and which in the report referred to was noted as consisting of a soil that needed only water to render it highly productive, is in fact the delta of the Colorado river, and according to barometric levels, is so much lower than that stream as to be easily irrigated from it. Thus, there is every reason to believe 4,500 square miles of soil, of great fertility, of which nearly one-half is in our own territory, may be brought into cultivation in one unbroken track along the route.

Under the appropriation made at the last session for the continuation of those surveys and other purposes, three parties have been in the field during the past season. One of them was directed to make examinations with the routes of the 32d and 35th parallels. This survey has greatly improved the aspect of the former route, by changing the line for nearly half the distance between the Rio Grande and the Pimas villages on the Gila river, from barren ground to cultivatable valleys, and entirely avoiding a *jornado* of 80 miles, which occurs in that section; also by the discovery of an eminently practicable route through a cultivatable country, from the plains of Los Angeles, along the coast and through the Salinas valley to San Francisco. The connection originally proposed between those points was by way of the valley of San Joaquin and the Great Basin.

The attention of this party was also directed to an examination into the practicability of procuring water along certain parts of the route where it is now deficient. The report shows that it may be obtained by common wells at distances of about twenty miles.

From the result of this exploration, moreover, it appears practicable to obtain, at a small expense, a good wagon road supplied with water by common wells, from the Rio Grande down the San Pedro and Gila, and across the Colorado desert. Such a road would be of great advantage. Military operations would facilitate the transportation of the mail across that country, and relieve emigrants pursuing that route from much of the difficulty and suffering which they encounter.

A second party was charged with the duty of testing the practicability of procuring water by artesian wells on the Llano Estacado, an arid plain which has heretofore been described as a desert. The experiment has so far demonstrated its practicability as to leave little doubt of its final success. It will be continued, however, until the problem is fully solved.

The examinations into the feasibility of causing subterranean streams to flow upon the surface from artesian wells, though undertaken in connection with the practicability of a railroad if they should prove entirely successful, will have a value beyond their connection with that object, in the reclamation of a region which is now a waste, and its adaptation to the pastoral and perhaps the agricultural uses of man.

The third party was directed to conduct an exploration from the Sacramento to the Columbia river, with a view to ascertain the practicability of a route to connect the valleys of those rivers. The officer in charge has reported the successful completion of the duty, but has not given details. The same officer has been di-



rected to make a reconnoissance of the Sierra Nevada in the vicinity of the head branches of the Carson river.

The prosecution of instrumental surveys, accompanied by investigations in many branches of physical science simultaneously, over lines of such length and embracing such an extent of latitude, is a work of greater magnitude than any of the kind hitherto undertaken by any nation, and its results have not only proved commensurate with the amount of work done, but possess a value peculiar to the scale on which it has been conducted, as affording a basis for the determination of some questions of science which no number of smaller detached explorations could have furnished. The facts developed by these surveys, added to other information which we possess, suggests some considerations of great interest with regard to our territory on the Pacific. They exhibit it as a narrow slope of an average width of less than 150 miles of cultivatable land, skirting the ocean for a distance of one thousand miles, rich in those mineral productions which are tempting even beyond their value, and which would be most readily turned to the use of an invader, drained by two rivers of widespread branches, and with seaports lying so directly upon the ocean, that a hostile fleet could commence an attack upon any one of them within a few hours after being desisted from land; or if fortified against attack, so few in number, that comparatively few ships would suffice to blockade them.

This territory is not more remote from the principal European States than from those parts of our own country whence it would derive its military supplies; and some of these States have colonies and possessions on the Pacific which would greatly facilitate their operations against it. With these advantages, and those which the attacking force always has, of choice of time and place, an enemy possessing a considerable military marine, could with comparatively little cost to himself, subject us to enormous expenses in giving to our Pacific frontier that protection which it is the duty of the general government to afford.

In the first years of a war with any great maritime power, the communication by sea could not be relied upon for the transportation of supplies from the Atlantic to the Pacific States. Our naval peace establishment would not furnish adequate convoys for the number of storeships which it would be necessary to employ, and storeships alone, laden with supplies could not undertake a voyage of 20,000 miles, passing numerous neutral ports where an enemy's armed vessel, even of the smallest size, might lie in wait to intercept them.

The only line of communication, then, would be overland, and by this it would be impracticable with any means heretofore used to furnish the amount for supplies required for the defence of the Pacific coast. At the present prices over the best part of the route, the expense of land transportation alone for the annual supplies of provisions, clothing, camp equipage and ammunition for such an army as it would be necessary to maintain there, would exceed 20,000,000 dollars; the land transportation of each field 12 pounder, with a due supply of ammunition for one year, would cost \$2,500; of each 24 pounder and ammunition, \$9,000; and of a sea-coast gun and ammunition, \$12,000. The transportation of ammunition for a year, for 1,000 sea coast guns, would cost \$1,000,000. But the expenses of transportation would be vastly increased by war, and at the rates that were paid on the Northern frontier during the last war with Great Britain, the above estimates would be trebled. The time required for the overland journey would be from four to six months. In point of fact however, supplies for such an army could not be transported across the continent. On the arid and barren belts to be crossed, the limited quantities of water and grass would soon

be exhausted by the numerous draught animals required for heavy trains, and over such distances forage could not be carried for their subsistence. On the other hand, the enemy would send out his supplies at from one-seventh to one-twentieth the above rates, and in less time, perhaps in one-fourth the time if he should obtain command of the Isthmus routes.

Any reliance, therefore, upon furnishing that part of our frontier with means of defence from the Atlantic and interior States, after the commencement of hostilities, would be vain; and the next resource would be to accumulate there such an amount of stores and supplies as would suffice during the continuance of the contest, or until we could obtain command by the sea. Assigning but a moderate limit to this period, the expense would yet be enormous. The fortifications, depots and storehouses, would necessarily be on the largest scale, and the cost of placing supplies there for five years would amount to nearly \$100,000,000. In many respects the cost during peace would be equivalent to that during war. The perishable character of many articles would render it perhaps impracticable to put provisions in depot for such a length of time, and in many cases there would be deterioration amounting to some millions of dollars a year.

These considerations and others of a strictly military character, cause the Department to examine with interest all projects promising the accomplishment of a railroad communication between the navigable waters of the Mississippi and those of the Pacific ocean. As military operations depend in a greater degree upon rapidity and certainty of movement than upon any other circumstance, the introduction of railway transportation has greatly improved the means of defending our Atlantic and inland frontiers; and to give us a sense of security from attack upon the most exposed portion of our territory, it is requisite that the facility of railroad transportation should be extended to the Pacific coast. Were such a road completed, our Pacific coast, instead of being further removed in time, and less accessible to us than an enemy, would be brought within a few days of easy communication, and the cost of supplying an army there, instead of being many times greater to us than to him, would be about equal. We would be relieved of the necessity of accumulating large supplies on that coast, to waste, perhaps, through long years of peace, and we could feel entire confidence that let war come, when and with whom it may, before a hostile expedition could reach that exposed frontier, an ample force could be placed there to repel any attempt at invasion.

From the results of the surveys authorized by Congress, we derive at least the assurance that the work is practicable, and may dismiss the apprehensions which previously we could not but entertain as to the possibility of defending our Pacific territory through a long war with a powerful maritime enemy.

The judgment which may be formed as to the prospect of its completion, must control our future plans for the military defence of that frontier, and any plan for the purpose which should leave that consideration out of view, would be as imperfect as if it should disregard all those other resources with which commerce and art aid the operation of armies.

Whether we shall depend on private capital and enterprise alone, for early establishment of railroad communication, or shall promote its construction by such aid as the general government may constitutionally give; whether we shall rely upon the continuance of peace, until the increase of the population and resources of the Pacific States shall render them independent of aid from those of the Atlantic slope and Mississippi valley; or whether we shall adopt the extensive system of defence above referred to, are questions of public policy which belong to Congress to decide.

Beyond the direct employment of such a road for military purposes, it has other relations to all the great interests of our confederacy—political, commercial and social—the prosperity of which essentially contributes to the common defence. Of these it is not my purpose to treat, further than to point to the additional resources which it would develop, and the increase of population which must attend upon giving such facility of communication to a country so tempting to enterprise, much of which, having most valuable products, is beyond reach of market.

I have the honor to be, very respectfully, your obedient servant.

JEFFERSON DAVIS,  
Secretary of War.

To the President of the United States.

## LEASE OF THE STEUBENVILLE RAILROAD.

### MEMORANDUM OF CONTRACT.

It is agreed between the Pittsburgh and Steubenville Railroad Company, of the one part, and J. Edgar Thompson, of the city of Philadelphia, and his associates, of the other part, as follows, viz:

First. That the said party of the first part in consideration of the sum of one dollar in hand, paid by the party of the second part to the party of the first part, and in consideration of the performance by the party of the second part of the agreements, stipulations, and conditions hereinafter provided, doth lease to the party of the second part, the Pittsburgh and Steubenville Railroad, for the term of twenty years from the first of January, 1856, together with all its rights, franchises, privileges, real estate, road bed, personal property and effects, in any way belonging to said company.

Second. In consideration whereof, the party of the second part hereby covenants and agrees to take the available assets of said Company, estimated as follows, viz:

|                                                        |          |
|--------------------------------------------------------|----------|
| Claim on Chartiers Valley Railroad Co.....             | \$40,000 |
| Balance due by late Treasurer.....                     | 17,000   |
| Unpaid individual subscriptions.....                   | 43,000   |
| Allegheny County Bonds, unsold.....                    | 10,000   |
| Mortgage Bonds of the Co. unsold, (\$750,000). 662,500 |          |

And with the same to finish said road, with a single track from Jones' Ferry, opposite the city of Pittsburgh, to the Ohio River, opposite Steubenville, and to erect all the necessary depots and buildings, stations, water and wood houses, sidings, turn outs and switches, as soon as practicable; the whole to be completed, under the direction of the present Chief Engineer of the Company, on or before the first day of January, 1857.

Third. The said party of the first part covenants and agrees, to and with the party of the second part, that should the cost of completing the road, as hereinbefore stated, exceed the following estimate of the same, viz:

|                                                   |           |
|---------------------------------------------------|-----------|
| To pay debts of Company and complete roadway..... | \$390,000 |
| Finish Superstructure, complete.....              | 356,000   |
| Pay one year's interest on Stock of Co.....       | 66,000    |

the party of the first part shall, for such excess, and for an amount sufficient to purchase the necessary rolling stock and motive power, issue their negotiable notes, upon such terms as shall hereafter be agreed upon by the parties to this contract, or pay the same in cash.

Fourth. The said party of the second part shall run and operate the road during the whole period of the lease, with sufficient rolling stock, motive power, and equipment to accommodate the whole business thereof, and shall retain out of the gross receipts fifty-five per cent. per annum of the amount thereof, for so doing, and the remaining forty-five per



cent shall be applied, first to the payment of interest on the mortgage bonds of the Company, and the notes herein provided to be issued. *Provided*, however, that if fifty-five per cent. of said gross receipts are insufficient to pay the expense of keeping up and operating the road, the deficiency for that purpose shall be retained out of the forty-five per cent. before any part thereof is applied to paying interest and notes, as above provided for.

Fifth. It is agreed by the said party of the first part, that they will procure from the city of Pittsburgh and county of Allegheny, the assignment of their stock to the Trustees named in the mortgage, for the purpose of annually during the term of this lease, electing as President and Directors of said Company such persons as shall be nominated by those holding a majority of the mortgage bonds and notes of the company—*provided*, that as soon as the requisite legislation shall be obtained to relieve the party of the second part from individual liability in operating the road under this lease, said stock shall be transferred to the city and county.

Sixth. The said party of the first part shall assign to the party of the second part any future subscriptions to their stock that may be obtained from the city of Philadelphia or from any other source, or the benefits of any arrangement that may be effected to secure the construction of a bridge over the Ohio river, at Steubenville, which bridge, so soon as sufficient funds or approved obligations are secured for the purpose, shall be erected by the party of the second part.

Seventh. The party of the second part hereby agrees to pay six per cent. per annum on the stock held by the city, county and individuals to be paid on the first days of January and July, until this road is opened for business.

Eighth. The said party of the second part hereby covenants and agrees with the party of the first, to permit any citizen of Pittsburgh or Allegheny county to become an associate lessee in interest with him, who will subscribe and pay in, as called for, before the first of February, 1856, not less than one thousand dollars.

Ninth. Before this agreement shall be binding on either party, the assent of the Councils of the city of Pittsburgh, and Commissioners of Allegheny county, shall in due and proper form, be obtained thereto; and the said city councils shall, by ordinance, provide for the passage of the railroad through the city, in such a manner as will enable the company to connect by rail with the Pennsylvania Railroad, and the other roads leading from the said city eastward, either at the foot of Liberty street, or by a tunnel through Grant's Hill, to the passenger depot of the Pennsylvania Railroad, on said street.

#### LAKE SUPERIOR RAILROAD.

A meeting was held, at Ontonagon, in the Upper Peninsula of Michigan, to concert measures for a railroad to connect the Superior country with the Eastern States.

The following is a description of the route which the people of that region desire:

*Resolved*, That books be immediately opened under direction of County Committee, for subscription to the Stock of the designed Railroad, with a view to its permanent and legal organization and that it be styled the Lake Superior and South East Railroad Com-

pany; that its route shall be, commencing at Fond Du Lac, Wisconsin, running north to the State line, at or near the line between Ranges 33 and 34; thence by the valley of the East branch of the Ontonagon River, to some point near the Minesota Mine, and thence to the city of Ontonagon.

That in connection, and as part of the road, a branch be located from or near the intersection of the State line, to Marquette, to be styled the Marquette County Branch Railroad. And, also, that from some convenient point south of Minesota Mine, a branch to be located along the mineral Range, to the Cliff Mine, and thence to Copper Harbor, to be styled the Houghton County Branch Railroad.

That such Branches shall be under the control and management of the people of the counties through which they pass, and for whose benefit they are intended.

## Miscellaneous and Mechanical.

### PHYSICAL GEOGRAPHY OF NORTH AMERICA.

(CONTINUED.)

After these preliminary remarks, intended to clear the subject of some confused notions in respect to its general principles. I may pass over to a statement of facts, which shall be mostly such as have fallen under my own observation.

1. The great chain of Rocky Mountains divides, in the neighborhood of the origin of the Rio Grande, into two ranges, of which one runs along the eastern, the other along the western side of that river, down to about the latitude of Santa Fe.

Every one who has traveled from the Missouri river to the capitol of New Mexico, is well aware of the fact that the latter part of the road, from Los Vegas to its termination, turns round the southern promontory to the eastern range. To the north he leaves steep, high and mostly snow-covered mountains, while the elevations to the south are of two kinds, but both different in character from the great chain to the north. Some there are, it is true, which have been caused by plutonic eruptions, and the upheaval of metamorphic and sedimentary masses; but they are merely little isolated groups, or ridges, such as the Placer, Sandilla, and Manzana mountains.—The rest are either mere declivities, or detached portions of the general table land. This latter, at an average altitude of nearly 7,000 feet above the sea, turns round that same southern promontory, from the eastern to the southwestern side of the great chain, and, running out here in a projecting corner to the westward, reaches the very borders of the valley of the Rio Grande, where at many places, the traveler has a view over its edges down into the valley near Albuquerque. The little groups and ridges just mentioned have entirely the general character of the numerous mountains which, like the islands of an archipelago, are scattered all over the high plains of western Texas and Mexico. If, nevertheless, they be considered as the southern continuations, or representatives, of the Rocky Mountains, which in a certain sense they really are, it should be in view of the correspondence of the natural arrangement of elevations in that section of country to the western terminal range, which, south of Santa Fe, appears to pass over the eastern side of the river, following in this way, the general south-by-east course of the system.

2. Whoever has traveled from El Paso to California by the Gila route, knows that, following Cook's route in its southern bend, he has to pass over several mountain spurs; but that, choosing the straight line of a more northern track, called Leroux's route, he passes from the Rio Grande to the Gila, near the Pima villages, without the necessity of surmounting a single real mountain-chain. In general, there is no doubt that, if the traveler were not bound to touch the few watering places, and to avoid difficulties of another character, he could keep off from mountains altogether. If, therefore, the western terminal range of the Rocky Mountains should reach so far south as the origin of the Gila river, it certainly does not pass over to the south of that locality. It is, however, much more likely that the road from Albuquerque to Zuni, and, perhaps, even the old Spanish trail from Santa Fe, by Abiquiu and the head waters of the San Juan river, to Los Angeles, turns round the real southern promontory of the western terminal range.

It is true that further south, in the neighborhood of Socorro, in about 34 deg. of latitude, mountains of considerable elevation, and steep Alpine forms, stand on the western side of the Rio Grande. They appear, however, to be separated from the Rocky Mountains by a wide interval of flat and open country, which has been made use of for the passage of several routes. This section of country I do not know from personal observation, except from what I could see in coming down the Rio Grande. Now, even conceding that reasons might be found to consider the mountains near Socorro as a continuation of the western terminal range of the Rocky Mountains, still they would not form a connection with the Sierra Madre, because such a connection cannot be found further south. Between Valverde and Santa Barbara the same group of mountains form those impassable narrows of the valley of the Rio Grande, which compel the traveler to leave the river and traverse, for ninety miles, the ill-reputed desert of the *Jornada del Muerto*, or "dead man's journey," the south-eastern portion of the group thus proving to stand on the eastern side of the Rio Grande.

3. The mountains which here obstruct the valley, those further north which rise in picturesque forms from the western side of the river near Socorro, together with the Copper Mine Mountains, and the little group of Ben Moor, appear to belong in reality, to a central and separate system, in which the Gila river takes its origin, and which might be called the Upper Gila mountains. Its centre appears to be the *Sierra Blanca*, so called, not from being covered with eternal snow, as might be supposed, but from the white color of its rocks. In a deep and narrow canon of the southern portion of the system I observed white masses of a porphyritic or trachytic formation, with transitions into pearl-stone.

It has been pretended that the real connecting link between the Rocky Mountains and the Sierra Madre is formed by a chain called the Sierra de los Mimbres. But the traveler in the section of country where it should exist will look in vain for such a chain. The name, indeed, is only applied to the restricted and subordinate mountain locality on the southern verge of the Upper Gila Mountains, so called from the Rio de los Mimbres, a small creek which, during the dry season, is lost in the plain, but is said to continue its course so far south as to reach the Laguna de



Santa Maria, a lake situated west by south of El Paso. *Mimbre* is the Mexican name of a beautiful bignonaceous shrub (a *Chilopsis*) exclusively growing in the alluvial beds of sand and pebbles of little intermittent streams. The little creek, therefore, has its name from the shrub; and the mountain locality in which the creek has its origin, near the now deserted Fort Webster, obtains its appellation from the creek—a fact which shows its subordinate character.

4. After having approximately defined the southern extremity of the Rocky Mountains, I have now to follow the course of those detached groups and ridges which, in a certain sense, to be explained hereafter, may be called its southern equivalent. I have already stated that, if such an equivalent exists, it is to be looked for on the *eastern* and *not* on the western side of the Rio Grande. The traveler coming from San Antonio de Bejar, on his way to El Paso or to the Presidio del Norte, has to pass these mountains, which, situated west of the Pecos river, mark a step from a lower to a higher section of the plateau of western Texas. In steep and singular forms, of a character entirely different from the hills formed by declivities and detached portions of table land, as common in western Texas as they are on the head waters of the Tecos and the Canadian, these groups and ridges of plutonic and metamorphic masses, formed by a combination of upheavals and eruptions, emerge from the high surrounding plains.

On the road to the Presidio del Norte they are passed in the *Puerto del Paisano*, on the road to El Paso, in the *Puerto de las Limpias* or "Wild-Rose" Pass, two localities of the most striking character of wild and romantic mountain scenery—particularly the latter of the two, where the walls of immense porphyritic eruptions are separated into innumerable strange shapes of needles, spires, columns, and spheroids. South of the Presidio del Norte, in the neighborhood of San Carlos, this line of mountains strikes again the Rio Grande, passing from the eastern to the western side of the river without changing its general direction, the river forming here a great eastern bend, in a long, deep, narrow and impassable gorge, through which, in a series of rapids, it pours down from the elevated country of its upper and middle course into the deep country of the Mexican gulf.—On its western side, then, the line of mountains bordering the *Bolson de Mapimi* to the east runs further south through the states of Coahuila, Nuevo Leon, San Luis Potosi, and Vera Cruz, where it forms the eastern margin of the plateau of Anahuac.

I come now to speak of the *Sierra Madre*. This denomination has been the cause of many geographical misunderstandings and misconstructions. It has been understood as a real proper name, while it is but an appellative, meaning the mother chain of mountains—i. e., the principal chain of a country in general, just as the Mexicans call *acequia madre* the principal channel of a system of irrigation. Thus the name may occur in different localities without thereby authorizing geographers to conclude that all the mountain chains which have received that denomination belong to one and the same system.—It may, therefore, really be as some maps have it—I do not know from what source—that a certain chain *east* of Durango, belonging to the line of ridges which passes over from Texas to Mexico, is known under the name of *Sierra Madre*, too. But it is certain,

and every one who has traveled across Mexico in that latitude knows it, that the *Sierra Madre*, in the sense generally adopted in the country, is *not east* but *is west* of Durango, and is passed by the road from that city to Mazatlan. Of a mountain chain in New Mexico called *Sierra Madre*, and pretended to be situated on the western side of the Rio Grande, I have never heard. But if the name should occur there, too, as some maps likewise have it, I am almost sure that it has only been used by some Mexican theorist who wanted to convey a general idea of the geography of his country according to his own fancy—that it is not, therefore, a commonly employed term there—and under no consideration could even a fact contrary to this conviction prove any connection of the Rocky Mountains with the *Sierra Madre* proper, which, following the direction of the Pacific coast of Mexico, borders the interior table-land of that country towards the low country of Michoacan, Jalisco, Sinaloa, and Sonora. If such a conclusion could be allowed to be drawn from a mere name, it would certainly be as justifiable to prove a connection, or at least a relation, of the *Sierra Madre* proper to that chain of mountains which our geologists now call the *San Bernardino chain*, but which the old Californians likewise know under the name of *Sierra Madre*.

Now as to the *Sierra Madre* proper, there is a singularity in the natural structure of this marginal chain, which, though by no means uncommon in other similar chains in different parts of the world, is one of the principal causes of the misconstructions of our maps in respect to western and northern Mexico. Nearly all the more considerable rivers which empty into the Gulf of California have their origin on the high plains of the interior table-land—that is to say, on the eastern side of the *Sierra Madre*—and, bursting through deep and narrow gorges or rents, cross the chain at right angles before they come down on a lower terrace of the country, and ultimately into the "*tierra caliente*" of the coast. This fact is to be seen in the most striking manner on the road from Chihuahua to the rich mining place of Batoseagachic, where the traveler passes without any ascent, from the high plateau on the eastern side of the *Sierra* down into the deep country on its western side, through one of these openings; the road coming out on the latter side at an elevation of several thousand feet above the lower country, where he may see the orange and banana, while he is still in the region of the pine-trees and of a northern climate. The water-course at the bottom of the transversal gorge is tributary to the Rio del Fuerte, which empties into the gulf somewhat south of the Rio Yaqui. One of the two principal branches of this latter river, the Rio de Papigochic or Conceptio, shows a similar phenomenon.—For nearly a hundred miles it runs along the eastern side of the *sierra* in a northerly direction, through the beautiful savannas of the western table-land of Chihuahua, passing many fine little towns, until at last it makes a sudden turn to the west, enters a gap in the mountains so narrow that it is scarcely perceptible in the landscape, and through it dashes down into the deep country on the western side of the chain. One of these two passages must be had in view by the projectors of the railroad from El Paso or the Presidio del Norte to Guaymas, for which Santa Anna has lately given a concession.—As geographers, however, have not understood this character of the chain, they have placed

it so far to the east of its real situation as to get it on the eastern side of the origin of the rivers of Sonora and Sinaloa.

At the same time there are some reasons to suspect that the astronomical positions of the interior of these two states are likewise too far east; by which circumstance, if my supposition, suggested chiefly by the comparison of distances on both sides of the mountain chain, should prove just, the *sierra*, even keeping its relative situation, would be brought nearer to the line of direction of the Rocky Mountains than it comes in reality, and by the combinations of the two errors the disfigurements of our maps appear to have been doubled. Thus, while the southern terminal ranges of the Rocky Mountains have been laid down too far west, the northern terminal ranges of the *Sierra Madre* have been laid down too far east, and both have been brought nearer to each other than they really are.

(CONCLUSION NEXT WEEK.)

#### INTERNAL IMPROVEMENTS IN KENTUCKY—GOVERNOR'S MESSAGE.

We extract a few paragraphs, relating to this interesting subject, from the Governor's annual message. It will be seen that the Governor wishes well to works of Internal Improvement in this State:

For the present condition of our works of internal improvements, I must refer you to the report of the President of the Board, which will be laid before you at an early day. The dividends from these works are sacredly dedicated by the constitution to the Sinking Fund. No new debt can be contracted on behalf of the Commonwealth, unless provision be at the same time made to lay and collect an annual tax sufficient to pay the interest stipulated, and to discharge the debt within thirty years, nor can such debt be made until the law shall have been submitted to the people at a general election, and shall have received a majority of all the votes cast for and against it. With this salutary, constitutional prohibition, there can be no expenditures by the Legislature in new schemes of public improvement. The dividends from some of the public works might be greatly enhanced by their extension, and I recommend that the most liberal inducements should be offered to individuals and companies to effect such extension.

While we cannot increase our public debt it is gratifying to know that the people of Kentucky are beginning to estimate properly the great advantages of extended railroad improvements, and are making the most active and energetic movements to meet the iron arms that our sister States are extending towards our borders. It is not too visionary to look forward to the day when the road from the mouth of Big Sandy shall be completed to the Mississippi river, and constitute a link in the great Atlantic and Pacific route, which must sooner or later be made, in order to bind together by iron bands the now distant parts of this great confederacy.

**A HUGE PROPELLER SCREW.**—The propeller for the U. S. new steam frigate *Wabash*, was recently cast at the foundry of Messrs. Merrick & Son, Philadelphia, and weighed 11 tons. It is composed of copper and tin—25,000 lbs. of the former, and 2,500 of the latter—the well-known gun metal. It has two blades, has a pitch of 23 feet, and is 17 feet in diameter—the largest propeller in the world.—*N. Y. Scientific American*.



**T**ABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK

| COMPANY.                                                     | NATURE OF BOND.                       | INT. | DUE.       | OFF'D. | ASK'D.  | SHS. | OFF'D. | ASK'D.      |
|--------------------------------------------------------------|---------------------------------------|------|------------|--------|---------|------|--------|-------------|
| Alabama and Tennessee.....                                   | 1st mortgage, convertible in 1872     | 7    | 1872       |        |         |      |        |             |
| Baltimore and Ohio.....                                      | Transferable. Taxed.....              | 6    | 1885       |        |         | 100  | 54     | 56          |
| Do do.....                                                   | Coupons. Not Taxed.....               | 6    | 1875       |        |         |      |        |             |
| Do do.....                                                   | " ".....                              | 6    | 1880       |        |         |      |        |             |
| Do do.....                                                   | " ".....                              | 7    | 1860       |        |         |      |        |             |
| Do do.....                                                   | " ".....                              | 6    | 1885       |        |         |      |        |             |
| Bellefontaine and Indiana.....                               | 1st mortgage, convertible.....        | 6    | 1866       |        | 98      | 50   | 38     |             |
| Buffalo and Penn. State Line.....                            | 1st mortgage, not convertible.....    | 6    | 1866       |        |         |      |        |             |
| Chicago and Rock Island.....                                 | 1st mortgage, convertible.....        | 7    | 1870       |        | 93      | 98   | 87     | 90          |
| Chicago and Mississippi.....                                 | 1st " ".....                          | 7    | 1862       |        |         |      |        |             |
| Do do.....                                                   | 2d " ".....                           | 7    | 1874       |        | 65      |      |        |             |
| Chicago and Aurora.....                                      | 1st " ".....                          | 7    | 1866       |        |         |      |        |             |
| Cincinnati, Newcastle and Mich. Real Estate.....             | " ".....                              | 7    | 1859       |        |         |      |        |             |
| Cleveland, Columbus, and Cin'tist mortgage, convertible..... | " ".....                              | 7    | 1859       |        | 100     | 101  | 107    |             |
| Do do.....                                                   | do No mortgage, convertible.....      | 7    | 1855       |        |         |      |        |             |
| Cleveland and Mahoning.....                                  | " ".....                              | 7    | 1861       |        |         |      |        |             |
| Cleveland, Paines. & Ashtabula 1st mortgage.....             | " ".....                              | 7    | 1861       |        |         | 100  |        |             |
| Do do.....                                                   | do 2d " not convertible.....          | 7    | 1861       |        |         |      |        |             |
| Cleveland and Pittsburgh.....                                | 1st " convertible.....                | 7    | 1860       |        |         |      | 64     | 65          |
| Do do.....                                                   | 1st " 2d sec. convertible.....        | 7    | 1873       |        |         |      |        |             |
| Cleveland and Toledo.....                                    | 1st mort. not conv. '73.....          | 7    | 1863       |        | 93      | 94   | 50     | 73 74       |
| Cleveland, Zanesville, & Cin'ti.....                         | " ".....                              | 7    | 1867       |        |         |      |        |             |
| Cincinnati, Hamilton & Dayton 1st mortgage " till 1855.....  | " ".....                              | 7    | 1860       |        | 85      | 87   |        | 62 1/2 65   |
| Do do.....                                                   | 2d mortgage.....                      | 7    | 1880       |        |         |      |        |             |
| Cincinnati, N. C. & Michigan.....                            | 1st mortgage, real estate, conv.....  | 10   | 5 & 10 y's |        | 42      | 43   |        |             |
| Cincinnati Western.....                                      | " ".....                              | 8    | 1858       |        | 45      | 47   |        | 12 1/2 14   |
| Cincinnati, Wil. and Zanesville 2d ".....                    | " ".....                              | 7    | 1862       |        | 62      | 65   |        | 30 32       |
| Cincinnati, Ind. and Chicago.....                            | " ".....                              | 7    | 1862       |        |         |      |        |             |
| Cincinnati and Chicago.....                                  | Real Estate.....                      | 8    | 1859       |        | 27      | 30   |        | 10 12       |
| Columbus, Piqua and Indiana.....                             | 1st mortgage, convertible.....        | 7    | 1862       |        | 75      | 76   |        | 7 1/2       |
| Do do.....                                                   | do 2d ".....                          | 7    | 1862       |        | 60      | 61   |        |             |
| Columbus and Xenia.....                                      | 1st mortgage, convertible.....        | 7    | 1859       |        |         | 80   |        | 81 84       |
| Covington and Lexington.....                                 | 2d " till 1862.....                   | 7    | 1863       |        | 65      | 66   |        | 50 21 22    |
| Do do.....                                                   | Income.....                           | 10   | 1862       |        | 62 1/2  | 63   |        | 50 25 27    |
| Dayton and Michigan.....                                     | 1st ".....                            | 7    | 1867       |        |         | 50   |        | 20 22       |
| Dayton and Western.....                                      | 1st ".....                            | 7    | 1862       |        |         |      |        |             |
| Dayton, Xenia and Belpre.....                                | Real Estate.....                      | 10   | 1862       |        | 60      | 61   |        |             |
| Eaton and Hamilton.....                                      | 1st mortgage.....                     | 7    | 1862       |        |         | 25   | 30     | 31          |
| Erie and Kalamazoo.....                                      | 1st mort. guaranty Mich. S. R. R..... | 7    | 1862       |        |         |      |        |             |
| Evansville and Crawfordsville.....                           | 1st mortgage.....                     | 7    | 1862       |        | 80      | 81   |        | 12 1/2 14   |
| Fort Wayne and Southern.....                                 | " ".....                              | 7    | 1862       |        |         |      |        |             |
| Franklin and Warren.....                                     | " ".....                              | 7    | 1862       |        |         |      |        |             |
| Galea and Chicago Union.....                                 | Pledge of second section, conver..... | 10   | 1853-6     |        |         |      | 100    | 123 1/2 124 |
| Hillsboro and Cincinnati.....                                | 1st mort.....                         | 7    | 1878       |        | 60      | 61   |        | 50 25 27    |
| Illinois Central.....                                        | 1st mortgage, not convertible.....    | 6    | 1875       |        | 81 1/2  | 83   |        | 160 97 98   |
| Do do.....                                                   | Freeland.....                         | 6    | 1875       |        | 80 1/2  | 82   |        |             |
| Indiana Central.....                                         | 1st mortgage, convertible.....        | 7    | 1866       |        | 63 1/2  | 75   |        | 50 45 50    |
| Do do.....                                                   | " ".....                              | 10   | 1837       |        |         | 80   |        | 50          |
| Indianapolis and Bellefontaine 1st ".....                    | " ".....                              | 7    | 1860-1     |        |         | 75   |        | 25 50 50    |
| Indianapolis and Cincinnati 2d mortgage.....                 | " ".....                              | 7    | 1861       |        | 75      | 80   |        | 30 62 63    |
| Indianapolis and Lafayette.....                              | " ".....                              | 7    | 1861       |        |         | 50   |        |             |
| Jeffersonville.....                                          | 1st " not ".....                      | 7    | 1861       |        |         |      |        | 36          |
| Junction (Ohio).....                                         | 1st " ".....                          | 7    | 1867       |        |         |      | 50     | 11 15       |
| Do Indiana.....                                              | Real Estate.....                      | 10   | 1867       |        | 70      | 72   |        | 10 15       |
| La Crosse and Milwaukee.....                                 | " ".....                              | 8    | 1864       |        | 77      | 82   |        | 100         |
| Little Miami.....                                            | 1st mortgage, not convertible.....    | 6    | 1863       |        | 78      | 81   |        | 50 86       |
| Do do.....                                                   | " " till 1855.....                    | 7    | 1858       |        | 95      | 100  |        |             |
| Louisville and Nashville.....                                | " " unconvertible.....                | 7    | 1858       |        |         |      | 100    |             |
| Lyons, Iowa, Central.....                                    | 1st mortgage, convertible.....        | 7    | 1873       |        |         |      |        |             |
| Mad River and Lake Erie.....                                 | 1st mortgage, convertible till 1855   | 7    | 1855-6     |        |         | 75   |        | 50 25 26    |
| Do do.....                                                   | 2d ".....                             | 7    | 1866       |        | 70      | 75   |        |             |
| Do do.....                                                   | Dividend.....                         | 7    | 1860       |        |         | 75   |        |             |
| Madison and Indianapolis.....                                | 1st mortgage, convert. after 1853.    | 6    | 1861       |        |         |      |        |             |
| Marietta and Cincinnati.....                                 | Domestic Bonds.....                   | 7    | 1861       |        | 46      | 50   |        | 50 17 20    |
| Do do.....                                                   | United 2d ".....                      | 7    | 1861       |        |         | 50   |        |             |
| Hillsboro and Cincinnati.....                                | 1st ".....                            | 7    | 1861       |        | 73      | 75   |        |             |
| Maysville and Big Sandy.....                                 | " ".....                              | 7    | 1861       |        |         |      |        |             |
| Maysville and Lexington.....                                 | 1st mortgage, convertible.....        | 6    | 1873       |        |         |      | 50     |             |
| Memphis and Charleston.....                                  | " ".....                              | 6    | 1873       |        |         |      |        |             |
| Michigan Central.....                                        | No mortgage, convertible.....         | 8    | 1860       |        | 97      |      |        | 97 1/2 100  |
| Do do.....                                                   | " ".....                              | 8    | 1855-6     |        |         |      |        |             |
| Do do.....                                                   | " " not ".....                        | 8    | 1857-8     |        |         |      |        |             |
| Michigan Southern.....                                       | 1st " ".....                          | 7    | 1860-90    |        |         | 100  |        | 91 94       |
| Milwaukee and Mississippi.....                               | 1st " ".....                          | 8    | 1862       |        |         |      |        | 82          |
| Mobile and Ohio.....                                         | 1st mortgage 6s. 1824.....            | 7    | 1862       |        |         |      |        |             |
| Nashville and Chattanooga.....                               | " ".....                              | 7    | 1862       |        |         |      |        |             |
| New Albany and Salem.....                                    | mortgage on 1st section.....          | 10   | 1858-62    |        |         |      | 50     | 6 10        |
| Do do.....                                                   | 1st " on other sec. con.....          | 8    | 1864-75    |        |         |      |        |             |
| New Castle and Richmond.....                                 | 1st " convertible.....                | 6    | 1873       |        |         |      |        |             |
| New York Central.....                                        | " ".....                              | 7    | 1867       |        | 100     | 102  |        | 92 93       |
| New York and Erie.....                                       | 1st mortgage, not convertible.....    | 7    | 1867       |        |         |      | 100    | 51 51       |
| Do do.....                                                   | 2d " convertible.....                 | 7    | 1862       |        | 80      | 81   |        |             |
| Do do.....                                                   | " ".....                              | 7    | 1883       |        | 95      | 97   |        |             |
| Northern Cross, Ill.....                                     | 1st mortgage, convertible.....        | 8    | 1873       |        |         |      |        |             |
| Northern Indiana.....                                        | 1st " not convertible.....            | 7    | 1861       |        | 98      |      |        |             |
| Do do.....                                                   | " " Goshen line.....                  | 7    | 1868       |        | 83      | 84   |        | 91 94       |
| Do do.....                                                   | Construction Bonds.....               | 7    | 1861       |        |         |      |        |             |
| Ohio Central.....                                            | 1st mortgage, convertible.....        | 7    | 1861       |        | 67      |      |        | 15 20       |
| Ohio and Mississippi.....                                    | 2d ".....                             | 7    | 1860       |        | 41      | 47   |        | 2 1/2 5     |
| Ohio and Indiana.....                                        | 1st " ".....                          | 7    | 1867       |        |         |      | 50     | 14 18       |
| Ohio and Pennsylvania.....                                   | " ".....                              | 7    | 1865       |        |         |      |        |             |
| Do do.....                                                   | Income. No mortgage, convert.....     | 7    | 1872       |        |         |      | 50     |             |
| Pacific, Mo.....                                             | " ".....                              | 7    | 1872       |        |         |      |        |             |
| Panama.....                                                  | 2nd issue.....                        | 7    | 1873       |        | 107 1/2 | 108  |        | 105 107     |
| Parkersburg (or N. western Va.).....                         | " Guar. City of Balt.....             | 7    | 1873       |        |         |      |        |             |
| Pennsylvania.....                                            | 1st mortgage, convert. till 1860..... | 6    | 1880       |        |         |      | 50     | 43 1/2 40   |
| Do do.....                                                   | 2d ".....                             | 7    | 1860       |        |         |      | 25     | 20 27       |
| Rock River Valley Union.....                                 | 1st " ".....                          | 7    | 1872       |        |         |      |        |             |
| Sandusky and Mausfield.....                                  | 1st " ".....                          | 7    | 1860       |        |         |      | 50     |             |
| Do do.....                                                   | 2d ".....                             | 10   | 1853-7     |        |         |      |        |             |
| Scioto and Hocking Valley.....                               | 1st " income.....                     | 7    | 1861       |        | 50      | 51   |        | 50 50 51    |
| Southwestern, Tennessee.....                                 | " ".....                              | 7    | 1861       |        |         |      |        |             |
| Springfield and Columbus.....                                | " ".....                              | 7    | 1865       |        |         |      |        |             |
| Steubenville and Indiana.....                                | 1st mortgage, convertible.....        | 7    | 1865       |        | 91      | 93   |        |             |
| Terre Haute and Alton.....                                   | 1st " ".....                          | 8    | 1865       |        | 72      | 75   |        |             |
| Do do.....                                                   | 2d " ".....                           | 8    | 1865       |        |         | 80   |        |             |
| Terre Haute and Richmond.....                                | 1st " ".....                          | 6    | 1866       |        |         |      |        |             |
| Toledo, Norwalk and Cleveland.....                           | 1st " ".....                          | 7    | 1863       |        | 67      | 88   |        | 50          |
| Do do.....                                                   | 2d " ".....                           | 7    | 1863       |        |         |      |        |             |
| Do do.....                                                   | Guo far. C.....                       | 1853 |            |        |         |      |        |             |

## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES

|                        | INT. | DUE. | OFF'D. | ASK'D |
|------------------------|------|------|--------|-------|
| U. S. Loan.....        | 6    | 1866 | 102½   | 115   |
| Do.....                | 6    | 1862 | 112    | 113   |
| Do.....                | 6    | 1867 | 117½   | 120   |
| Do.....                | 6    | 1868 | 118½   | 120   |
| (int. ceased July 1) 5 |      | 1833 |        | 102   |
| Do.....                |      | 1842 |        | 118   |
| Do.....                | 6    | 1867 |        | 118   |
| Coupons.....           |      | 1853 |        | 101   |

## STATE

| STATE                |                   |         |         |     |
|----------------------|-------------------|---------|---------|-----|
| Alabama              | 5                 | ...     |         |     |
| California           | 7                 | 1870    | 89      | 90  |
| Arkansas             | 6                 | ...     |         | 96  |
| Georgia              | 6                 | ...     | 98      | 99  |
| Do                   | 7                 | ...     |         |     |
| Illinois Canal Bonds | 1860              |         |         |     |
| Do do                | registered        | 1860    |         |     |
| Do do                |                   | 1847    |         |     |
| Do do                | registered.       | 1847    |         |     |
| Do do                | Internal Imp.     | 6 1847  | 105     | 106 |
| Do                   | Interest do       |         | 72      | 75  |
| Indiana              | 5                 | ...     | 79 1/2  | 81  |
| Do                   | Loan              | 2 1/2   | 54      | 55  |
| Do Canal Loan        | 6                 |         |         |     |
| Do do                | preferred         | 5       |         |     |
| Do                   | special preferred | 5       |         |     |
| Kentucky, 30 years   | 6                 | 1871    | 102     |     |
| Do 16 years          | 6                 |         | 102     |     |
| Do large bonds       | 6                 | 1869-72 | 100 1/2 |     |
| Do                   | 5                 |         |         |     |
| Louisiana            | 6                 | ...     | 93      | 95  |
| Michigan             | 6                 | ...     | 97      | 98  |
| Missouri             | 6                 | ...     | 85 1/2  | 88  |
| New York             | 6                 | 1873    | 116 1/2 | 117 |
| North Carolina       | 6                 | ...     | 99      | 100 |
| Ohio                 | 6                 | 1856    | 102     |     |
| Do                   | 6                 | 1860    | 102 1/2 | 106 |
| Do                   | 6                 | 1870    | 107     | 110 |
| Do                   | 6                 | 1875    | 118     | 119 |
| Do                   | 5                 | 1855    |         |     |
| Pennsylvania         | 6                 | ...     |         |     |
| Do                   | 5                 | 1870    |         |     |
| Tennessee, long loan | 6                 | 1890    | 95 1/2  | 97  |
| Do Coupons           | 5                 |         | 81      | 83  |
| Virginia Coupons     | 6                 | 1886    | 93 1/2  | 95  |

## CITY SECURITIES

|                     |    |         |          |
|---------------------|----|---------|----------|
| Albany.....         | 6  | 1871-81 | 90%      |
| Allegheny.....      | 6  | 1875-7  | 80       |
| Baltimore.....      | 6  | 1870-90 | 100      |
| Do.....             | 5  | 1865    |          |
| Boston Bonds.....   | 4½ | 1860    |          |
| Chicago.....        | 6  | 1873-7  | 92½ 95   |
| Cleveland.....      | 6  | 1879    | 103½ 105 |
| Cincinnati.....     | 6  | 186-92  | 96 96½   |
| Do.....             | 6  | 1897    |          |
| Do.....             | 5  | 1884    |          |
| Do W. W.....        | 6  | 1865    |          |
| Covington.....      | 6  | 1857    | 80 80    |
| Jeffersonville..... | 6  | 1890    | 70       |
| Louisville.....     | 6  | 1880    | 86½ 87   |
| Memphis.....        | 6  | 1882    | 72½      |
| New York.....       | 7  | 1857    | 100½     |
| Do.....             | 5  | 1858-00 | 98 99    |
| Do.....             | 5  | 1870-5  | 97 100   |
| Do.....             | 5  | 1890    |          |
| Philadelphia.....   | 6  | 1876-90 | 89 89½   |
| Pittsburgh.....     | 6  | 1869-78 | 81 82    |
| Do coupons.....     | 6  | 1883    |          |
| Racine.....         | 7  | 1873    | 85 86    |
| St. Louis.....      | 6  | 1870    | 85 86    |
| Wheeling.....       | 6  | 1873    | 70 73    |

## COUNTY BONDS

|                                                             |   |        |     |    |
|-------------------------------------------------------------|---|--------|-----|----|
| Bourbon, Ky.                                                | 6 | 1881   | 77½ | 80 |
| Darke, O.                                                   | 7 |        |     |    |
| Fairfield, O.                                               | 7 | 1869   |     |    |
| Fayette, Ky.                                                | 6 | 1881-3 | 75  | 75 |
| Hancock Co.                                                 | 7 |        | 70  | 75 |
| Mason, Ky.                                                  | 6 | 1881   | 73  | 76 |
| McCracken Co. Ky., endorsed by<br>New Orleans and Ohio R.R. |   |        |     |    |
| St. Louis.                                                  | 6 | 1866   | 80  | 85 |
| Do                                                          | 7 | 1871   |     |    |

## BANKS

| OHIO                              |          |
|-----------------------------------|----------|
| American Exchange Bank, N. Y.     | 118      |
| Ohio Life Insurance and Trust Co. | \$5½ 100 |
| Washington Insurance Co.          | 84 65    |
| City Insurance.                   | 70       |
| Cincinnati Insurance Co.          | 84       |
| National Insurance.               | 75 80    |

KENTUCKY

|                                         |          |
|-----------------------------------------|----------|
| Bank of Kentucky and Branches.....      |          |
| Northern, and Branches.....             | 100      |
| Southern, and Branches.....             |          |
| Bank of Louisville.....                 | 93       |
| Kentucky Trust Co.....                  |          |
| Farmers' Bank of Kentucky, ex. div..... | 102½ 108 |
| Commercial Bank of Kentucky.....        |          |

## INDIANA

## ches....

## TENNESSEE.

|                                 |        |        |
|---------------------------------|--------|--------|
| State Bank and Branches.....    |        |        |
| Union.....                      |        |        |
| Planters.....                   |        |        |
| <b>LAND WARRANTS.</b>           |        |        |
|                                 | Buy'g  | Sell'g |
| 60 acre warrants, per acre..... | \$0 95 | 1 00   |
| 80 acre warrants.....           | 0 95   | 1 00   |
| 40 acre warrants.....           | 1 10   | 1 15   |
| 120 acre warrants.....          | 0 90   | 0 95   |



## RATES OF EXCHANGE.

| Place.            | Time.      | Buy'r | Sell'g. |
|-------------------|------------|-------|---------|
| On New York.....  | Sight..... | par   | 1/4     |
| Boston.....       | Sight..... | par   | 1/4     |
| Philadelphia..... | Sight..... | par   | 1/4     |
| Baltimore.....    | Sight..... | par   | 1/4     |
| New Orleans.....  | Sight..... | par   | 1/4     |
| England.....      | 100        |       | 169 3/4 |

SPECIE.  
GOLD.

|                             |         |   |         |
|-----------------------------|---------|---|---------|
| California clean, P oz..... | \$17 60 | @ | \$17 65 |
| Spanish Doubloons.....      | 16 75   | @ | 16 75   |
| Patriot Doubloons.....      | 15 75   | @ | 15 80   |
| Sovereigns*.....            | 4 86    | @ | 4 88    |
| Guineas.....                | 5 00    | @ | 5 00    |
| American, new.....          | 1 00    | @ | 1 00    |
| American, old.....          | 1 06    | @ | 1 06    |
| Portuguese.....             | 1 00    | @ | 1 00    |

## SILVER.

|                        |          |   |          |
|------------------------|----------|---|----------|
| American Dollars.....  | 1 03 1/2 | @ | 1 04     |
| American Halves.....   | 1 03 1/2 | @ | 1 04 1/2 |
| Spanish Dollars.....   | 1 14     | @ | 1 14     |
| Spanish Quarters.....  | 1 00     | @ | 1 01     |
| Mexican Dollars.....   | 1 05 1/2 | @ | 1 05 3/4 |
| Five Franc pieces..... | 97       | @ | 97 3/4   |

\* The standard English value attributed to the Sovereign is \$4.44, in London. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin.

## LONDON QUOTATIONS

OF  
AMERICAN STOCKS AND BONDS.  
FROM THE WEEKLY PRICE CURRENTOF  
E. F. SATTERTHWAITE, STOCK BROKER, LON.

Dec. 1, 1855.

|                                                 |     |     |
|-------------------------------------------------|-----|-----|
| Belvidere, Del., guar. 1st mort., conv.....     | @   | 87  |
| Chicago & Rock Island, Mort., conv. 1858.....   | "   | "   |
| Cin. Ham & Dayton, 2d mort.,.....               | "   | 80  |
| Erie, 3d Mortgage, 1883.....                    | 85  | 86  |
| " Sinking Fund.....                             | 82  | 83  |
| " conv. 1862.....                               | 76  | 78  |
| Grand Trunk (Canada) Debenture.....             | 85  | 90  |
| Great Western " conv.....                       | 116 | 120 |
| " " non-conv.....                               | 102 | 104 |
| Illinois Central, 1st Mort., 7's.....           | 74  | 76  |
| " " with option 70 per cent.                    |     |     |
| shares till Jan, 1858.....                      | 77  | 87  |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill.      |     |     |
| Cent.....                                       | "   | "   |
| Little Miami 1st Mort. not conv. 6's.....       | "   | "   |
| Marietta and Cincinnati, 1st Mort.....          | 80  | 80  |
| Michigan Central, conv. 8's, 1860.....          | 93  | 95  |
| do do 1869.....                                 | 94  | 96  |
| N. York Central, No Mort. Not conv. 6's 80..... | 82  | 82  |
| " conv. 7's.....                                | 94  | 96  |
| Ohio and Mississippi, 1st Mort.,.....           | "   | "   |
| Ohio and Pennsylvania, Income 1872.....         | 79  | 81  |
| Panama. No mort. conv. 1866.....                | 92  | 94  |
| Pennsylvania, 1st Mort., conv.....              | 88  | 89  |
| " Sterling, 2d Mort.....                        | 88  | 90  |
| Steuersville and Ind., 2d Mort.....             | "   | "   |

The quotations given are sterling quotations. The American values to be obtained by adding on exchange generally about 10 per cent.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

## MERCHANTS' EXCHANGE,

## AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

## BONDS.

For the week ending January 9, 1856.

|                                                                                 |        |            |
|---------------------------------------------------------------------------------|--------|------------|
| \$3,000 Cincinnati Hamilton & Dayton R. Co. 7 per cent. Bonds, due in 1880..... | 85     | (and int.) |
| 2,500 Covington & Lex. R. R. Co., 6 per cent. Income Bonds.....                 | 45     | "          |
| 5,000 Covington & Lex. R. R. Co., 7 per cent. 2nd Mortgage Bonds.....           | 65     | "          |
| 2,000 Hillsboro' & Cincinnati R. R. Co., 1st Mortgage 7 per cent. Bonds.....    | 60     | "          |
| 6,000 Mad River & Lake Erie R. R. Co. 7 per cent. Bonds, due in 1875.....       | 65     | "          |
| 2,000 Little Miami R. R. Co., 6 per cent. Bonds, due in 1883.....               | 78 1/2 | "          |
| 3,000 Cin. & Chicago R. R. Co. 8 per cent. Real Estate Bonds.....               | 27     | "          |

## STOCKS.

|                                     |        |
|-------------------------------------|--------|
| 48 Shares Indiana Central R. R..... | 45     |
| 100 " Marietta & Cincinnati.....    | 17     |
| 50 " Columbus & Xenia.....          | 81     |
| 200 " Cin. & Chicago.....           | 10     |
| 100 " do.....                       | 10 1/2 |
| 76 " do.....                        | 10 1/2 |
| 92 " Covington & Lex.....           | 21     |
| 20 " Cin. Hamilton & Dayton.....    | 62 1/2 |
| 100 " New Albany & Salem.....       | 6      |
| 200 " Ohio & Miss.....              | 2 1/2  |
| 100 " do.....                       | 2 1/2  |
| 150 " do.....                       | 2 1/2  |
| 14 " Cincinnati Insurance Co.....   | 63     |

## Monetary and Commercial.

The past, the first week in the new year, has developed no new feature, except an unprecedented season of cold weather. The thermometer this (Wednesday) morning stood at 15 degrees below zero.

The January settlements have been generally promptly met. The demand for accommodation from this source, therefore, has been light. General business, owing to the severity of the weather and stoppage of navigation, is dull, the requirements of commercial houses are again light on this account. Hence the supply of capital, although not large, is equal to the demand. We quote first class signatures accommodated at usual rates. Second class borrowers find the market stringent. Lower grades find discounts impossible.

Our Stock Market, during the week, has not been buoyant. Prices in general are sustained. Ohio and Mississippi has fallen to 2 1/2. It is hardly likely that this unfortunate Company will be able to complete its road without some great aid from other parties than those to whom application has been made. The Cincinnati and Chicago, another of our very important unfinished roads, holds its own. Covington and Lexington has declined 1/2. Cincinnati, Hamilton & Dayton has improved 2 1/2 percent. The number of shares changing owners is moderately large.

Our Eastern advices during the week have noticed a stringent market for discounts, with some slight improvement on Saturday. Rumors of favorable peace negotiations influence, more or less, transactions in all kinds of business. For ourselves, we see as yet no immediate prospect of a successful termination of any negotiations. If the Western powers are so weak as to be influenced in their preparations by such illusion, they will find, when too late, that all strategems are fair in war, and that Russia has too many resources within herself, to be yet reduced to the necessity of accepting what she has once rejected. On the other hand the Western powers cannot, consistently with their own dignity, abate one iota from their demands. Austria has always been, in Europe, what we should call "on the fence," and her temporising policy would warrant the supposition that she has not yet abandoned her position.

Stocks at last dates were firmer and slightly advancing. Exchange on London ranged from 108 1/4 to 108 3/4.

## NEW YORK STOCK SALES, JAN. 5.

|                                           |         |
|-------------------------------------------|---------|
| 1,000 Virginia 6's.....                   | 93 1/2  |
| 1,000 New York 5's, '58.....              | 100     |
| 5,000 Ohio 6's, '60.....                  | 102 1/4 |
| 4,570 do do '70.....                      | 107     |
| 1,000 Missouri 6's.....                   | 85 1/2  |
| 10,000 Erie Bonds '98.....                | 31 1/2  |
| 2,000 Chic. & R. L. R. R. Bonds.....      | 93      |
| 2,000 Terra Haute and Alton, 2d mort..... | 75      |
| 137 Shares N. Y. Cent. R. R.....          | 91      |
| 170 " Clev. & Tol. R. R.....              | 73      |
| 233 " Chicago & R. L.....                 | 86 1/4  |
| 25 " Clev. Col. & Cin.....                | 101     |
| 35 " Gal. & Chic. R. R.....               | 123 1/4 |
| 450 " Erie Railroad.....                  | 51      |
| 100 " Reading.....                        | 93 1/4  |
| 100 " Hud. River.....                     | 30 1/2  |
| 100 " Harlem.....                         | 16 1/2  |
| 10 " N. Haven and Hartford.....           | 125     |
| 175 " Mich. So. and No. Ia. R. R.....     | 91      |

## BALTIMORE STOCK MARKET.

We quote from the Baltimore Price Current the following Review of the Baltimore Stock Market for the year 1855.

In preparing our Review of the condition of the Stock Market for the year just closed, we notice considerable fluctuations in nearly all the securities sold in the Baltimore market, with the single exception of our regular dividend paying Bank Stocks. These securities have for some years past paid to their holders a net interest of 7 1/2 @ 8 1/2 per cent. and consequently have commanded a premium of 5 @ 20 per cent on the par value, according to the ease or stringency of the money market.

On the 15th January, 1855, Md. 6's, 1890, were sold at 101 1/2—September 15th they reached 107 1/2, the highest figure reached during the year. The sales for the year have been very moderate, the larger amount of these loans being held abroad, chiefly in England, where they are held in high favor as a safe investment.

City loans show very little fluctuations. At the commencement of the year the loan of 1890 were sold at 92 1/2 @ 93, the Councils having just at that time made the loan of

\$5,000,000 to the Balto. & Ohio R. R. Co. These bonds no coming into the market for some time, ruled at 93 @ 96 March 15th to April 15th large sales were made at 99 1/2 @ 98 1/2. July 15th they again rallied and were sold readily at 99 1/2. Since that time there has been very little fluctuation—they closed December 15th at 99 1/2 bid. The sales of City Loans, for the year have been very large, amounting in the aggregate to \$700,000 and upwards, exclusive of outside operations.

The ruling Stock at the Board is the B. & O. R. R. the operations in which at the Stock Board for the year amount to 356,900 shares, at an average of nearly 52 1/2 per share. We quote the shares on the 15th January at 47 1/2—sales at this rate were made on that day. April 15th they had declined to 45 1/2—sales in the mean time were made to a very large extent, principally on time. August 15th reached 52—the highest point they had attained during the year. Sept. 15 we quote them at 48 1/2, and at the close of the year (Dec. 15) 53 1/2 is the price bid—showing a tendency upwards. The receipts for the month of December will show, as we learn from good authority, a large increase over the receipts of the corresponding month of the last year. The probability of the payment of a cash dividend in April next seems of late to be gaining strength in the opinion of stockholders generally.

The other fancy (Northern Central) has, during the year, shown more fluctuation, starting at the beginning of the year at \$15 1/2 @ 15 1/4 cash, with large sales at these figures. From that period until July 15th we note very little change. On that day the cash price was \$18, and before the 15th of Aug. had reached \$19 1/4—since which time they have gradually fell, and close at the end of the year at \$16 bid. From a careful examination of our weekly reports, we find the sales of this Stock amount to nearly 138,000 shares since the beginning of the year.

Canton Co. Stock is now getting into notice in our market, in view of the fact that upon the completion of the Northern Central Railroad to Sunbury, with its terminus at Canton, as a depot for the reception of coal from the inexhaustible mines of the Susquehanna Valley, the value of their property will be considerably enhanced. The Bulls only regret that they cannot purchase on six months, buyer's option, instead of being limited in their operations to the short period of sixty days.

The sales at the Board during the year, of every description of securities, amount to the sum of \$25,168,000. In addition to this amount, large sales are frequently made out of the Board at the ruling prices of the day.

We note the following payments of dividends in Bank Stocks—

|                          |       |                                |
|--------------------------|-------|--------------------------------|
| Merchant's Bank.....     | 4 1/2 | per cent., payable 9th January |
| Farmers' & Planters..... | 4 1/2 | " " 8th "                      |
| Chesapeake.....          | 5     | " " 5th "                      |
| Citizens.....            | 5     | " " 9th "                      |
| Union.....               | 4 1/2 | " " 7th "                      |
| Franklin.....            | 4     | " " 19th "                     |
| Bank of Commerce.....    | 4     | " " 14th "                     |

\* State taxes paid. † State and City taxes paid.

This Bank also pays a dividend of 10 per cent. to the original stockholders upon the balance of assets placed in the hands of the Bank for collection, May 14, 1855.

## DESTRUCTION OF PROPERTY ON THE LAKES.

—It is ascertained that the number of disasters on the lakes from 1848 to 1854, inclusive, was 1560, making losses amounting to over six millions of dollars. Of this number, 384 vessels were lost and damaged in 1854, with a loss of \$2,187,825.

These figures give some idea of the extent of the commerce of the lakes, and of the unprotected character of the harbors around them, when such enormous loss can be piled up in so short a time, a great portion of it the direct result of the condition of the harbors. —Milwaukee Sentinel.

MINERAL TREASURE.—Mr. Ridgway, civil engineer and Geologist, estimates the amount of merchantable coal in Hampshire and Hardy counties (Va.), 1,560,000,000 tons at the lowest calculation. Within the area of the coal-measures he locates 375,000,000 tons of nodular argillaceous iron ore, besides 135,600,000 tons of the siliceous fossiliferous variety of ore in the rocks of Knobly mountain.



## RAILROAD CONVENTION.

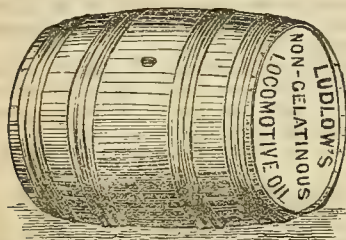
A large assemblage of railroad officers met at Fort Wayne, Indiana, on the 20th inst. There were delegates present from the States of Pennsylvania, Ohio, Indiana, Illinois, and Iowa. Hon. Arnold Plumer of Pennsylvania presided. The object of the Convention appears to have been to make arrangements for the consolidation of certain railroads in one grand line between the Atlantic and Missouri river at or near Council Bluffs, to be ultimately extended to the Pacific. It is proposed to call this extended line of railroad "The American Central Railroad." The following Companies were represented on the occasion: Clinton Line Railroad; Clinton Extension; Tiffin and Fort Wayne; Fort Wayne and Mississippi; Western Air Line; Philadelphia, Fort Wayne and Platt River; Venango Rail road.

## CHANGE OF NAME.

The well-known firm of Morris, Tasker & Morris, of Philadelphia, have changed the name of their firm to Morris, Tasker & Co.—They are still engaged in the business of making wrought iron Boiler Flues.

## W. D. LUDLOW'S

COMPOUND, NON-GELATINOUS LOCOMOTIVE



## LUBRICATING OIL.

THIS Article is a combination of Lubricating Oils, comes cheaper than any other Pure Oil. Warranted not to cull in any Climate, and is purely non-gelatinous.

Office No. 19 Front St. East of Broadway, Cincinnati, Ohio

## RAILROAD IRON.

## LOCOMOTIVES.

4,000 Tons rails, 58 to 61 lbs per yard 200 tons rails 49 lbs. per yard 1,400 tons rails 55 lbs. per yard. Also: several Locomotives of best manufacture, from 20 to 26 tons weight, adapted to roads of four feet eight and one half inches gauge, for sale by

H. H. GOODMAN &amp; CO.,

Jan 10. '56-2m.]

no. 7 Wall st., N. Y

## Insurance Agency.

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

DWELLINGS, STORES, WAREHOUSES,

and their contents,

STEAMBOATS, BARGES,

and their Cargos,

Manufacturing Establishments,

Railroad Depots and Station Houses,

at current rates.

L. A. OSTROM,

[pg. 16.

No. 6 West Third Street, Cincinnati.]

ALBERT M. SMITH'S  
PATENT PREMIUM RECLINING & SELF-ADJUSTING CAR SEAT

For a Night and Day High or Low-back Seat, combined in one, PATENTED AUGUST 21, 1855.

It was awarded two first premiums, a Gold Medal, at the great Fair at the "American Institute," held at New York, and a Diploma of the State Fair, held at Elmira, N. Y., 1855.

This valuable improvement is adapted and can be applied at a very trifling expense, to the ordinary seat now in use, without impairing its present qualifications as a day seat, and a new seat provided with it, and made in single seats, costs no more than the ordinary seat.

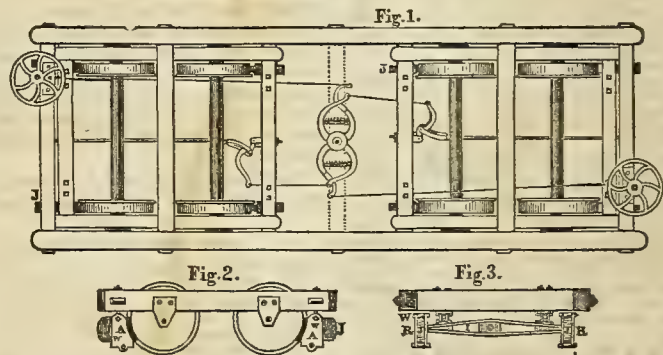
By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects

the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other.

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of ALBERT M. SMITH, Patentee and Manufacturer, dec20-1y 13 North St. Paul st., Rochester, N. Y., or TAULMAN & LOW, 157 Broadway, N. Y.

L. PAIGE'S  
IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviating all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

## Cincinnati, Hamilton, &amp; Dayton R. R.

SECRETARY'S OFFICE, CINCINNATI, }  
December 1st, 1855.

At a Meeting of the Board of Directors of this Company, held this day, a dividend of 5 per cent. on Stock, was declared out of the net earnings of the road to October 1st, 1855, payable to the Stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York on and after the 15th inst., fractional parts to be paid in cash, at the rate of eighty cents on the dollar, at the option of the Stockholders.

The Transfer Books will be closed for ten days from this date.

Dec. 6-1m

FRANK S. BOND, Secretary.

## IRON BOILER FLUES.

PASCAL IRON WORKS.

MORRIS, TASKER &amp; CO.,

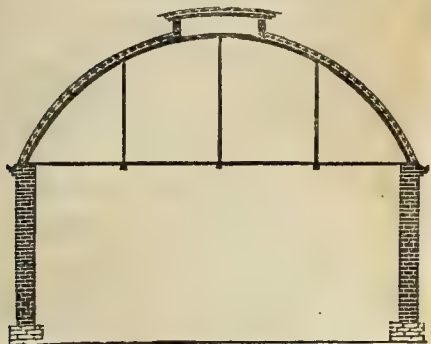
Manufacturers of  
LAP-WELDED BOILER FLUES,  
1½ to 7 inches outside diameter, cut to definite lengths,  
as required.

WROUGHT IRON WELDED TUBES,  
From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 25 South Third St.,  
PHILADELPHIA.



## MOSLEY'S Tubular Wrought Iron ARCH ROOFS.



OFFICE, NO. 57, WEST THIRD ST.  
CINCINNATI, OHIO.

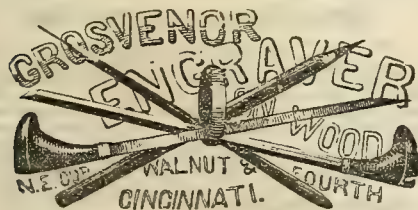
The supporting parts of these roofs are made in the same manner as Mosley's

### TUBULAR BRIDGING.

The tubes are light and of immense strength, capable of bearing twenty times more burden than will ever go upon them. Such roofs can be built in less than half the time, weigh much less and cost less than any plan of Iron Supporting now in use, and no more than good wooden Trusses; besides, this plan of roofing gives a fine architectural appearance, is all iron, and proof against injury to walls, etc. by expansion and contraction. We are prepared to manufacture roofing, after this plan of any size and span, in any and all parts of the country, on the shortest notice.

MOSLEY, WINSTON & MOSLEY,  
THOS. W. H. MOSLEY,  
Sup. and Engineer.  
JOHN BAUDEN & CO.  
Special Contractors

January 1st., 1856]



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,

North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,

CINCINNATI.

### BANK NOTE ENGRAVING.

DANFORTH, WRIGHT & Co.,  
No. 25 West Third Street, Cincinnati.  
Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

Rawdon, Wright, Hatch & Edson,

BANK NOTE

ENGRAVERS AND PRINTERS.

Also, engraved in a style corresponding in excellence  
with that of Bank Notes—

### RAIL ROAD, STATE, AND COUNTY BONDS,

BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, etc., &c.

Constantly on hand, Bank Note Paper, made to order  
of a superior quality.

The above office is under the supervision of  
GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.

**D. D. MILLER,**

Manufacturer of

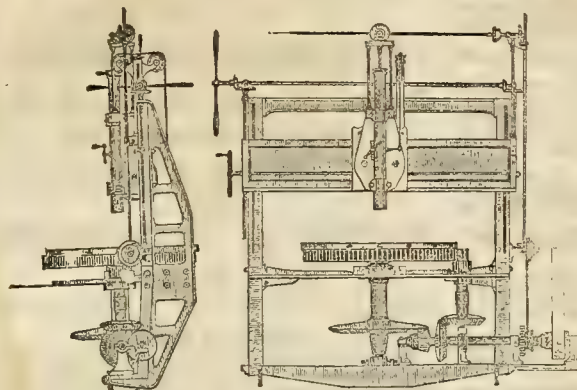
LOCOMOTIVE, RAILROAD AND HAND  
LANTERNS,

190 Water Street New York.

## NILES' WORKS.

### FOUNDERS AND MACHINISTS,

EAST FRONT STREET, CINCINNATI,



Manufacturers of

### TYRE LATHES,

Of the most approved plan.

### HORIZONTAL

### FACE PLATE LATHES,

OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

### PLANING MACHINES

LARGE & SMALL.

## MARINE & STATIONARY ENGINES.

BOILERS OF EVERY DESCRIPTION.

## HEAVY FORGINGS,

IRON AND BRASS CASTINGS, &C., &C.

### BANCROFT & SELLERS,

16th Street and Pennsylvania Avenue,

PHILADELPHIA, PA.,

Manufacture, in addition to their well  
known class of

ENGINEERS' & MACHINISTS' TOOLS,  
SHAFTING, GEARING,

PULLEYS, COUPLINGS,

AND

BANCROFT'S PATENT SELF-ADJUSTING  
HANGERS & PEDESTALS;

Together with general Millwright Work for Railroad  
and Locomotive Shops, Factories, etc.

— ALSO —

### CAST IRON TURN-TABLES,

Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with

PARRY'S PATENT

### Anti-Friction Pivot Box.

— ALSO —

TRANSFER AND DROP TABLES,

Suited for Locomotive and Repair Shops, Car Facto-  
ries, etc., etc.

### London Agency for Sale of Bonds &c.

Messrs LANCE & Co., are making more generally  
known in England, the great advantages of American  
securities for investment.

During the present year Messrs Lance and Co. have  
disposed of a large amount of American and Canadian  
Railway Bonds, and are fast extending their connec-  
tions. They will be happy to correspond with parties  
having good American Securities for sale.

Messrs LANCE & Co. have had experience in the pur-  
chase and shipment of Iron, and offer their cooperation  
to those about to negotiate for the disposal of Bonds  
and the purchase of Rails.

P. S. Presidents of Railway Companies are requested  
to favor Messrs L & Co. with Exhibits or Reports of  
their Companies as published.

10, Regent street, Waterloo Place, London.  
October 1855. NOV. 15-56.

### LOCOMOTIVES FOR SALE.

OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY.

Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines,  
29 tons weight; 10 wheels, 6 drivers and truck  
Two of the Engines now ready for delivery, and four  
in the course of three months. Our Coal Burners are  
used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage)  
Pennsylvania Central; Manassas Gap & Orange & Al-  
exandria, Georges Creek Co.'s road, Central Ohio, and  
Ohio & Penna.; and for their durability and economy  
of repairs, and economy of fuel, we refer to the officers  
of the above roads.

Orders for freight or passenger engines deliverable or  
or after the first of December, solicited.

Address, **THATCHER PERKINS,**  
President.

Also, for sale, two Twenty Horse Power Stationary  
Engines. Aug. 9 41

### Railroad Printing.

**WE** have now attached to this office an ex-  
tensive Composition and Press Room and  
Bindery, under the personal supervision of the  
proprietors of the Record. With confidence,  
therefore, we call the attention of RAILROAD OF-  
FICERS and others to our extensive establishment,  
containing every facility for turning out superior  
work in any and every department of the PRINT-  
ING BUSINESS.

We are fully prepared to furnish Railroad and  
other Reports, with or without Maps or other Il-  
lustrations, gotten up at short notice and in supe-  
rior style. Also, Blanks of any description, adapted  
to the wants of the various departments of the  
Railroad service, and to the wishes and tastes of  
the parties.

Also, Railroad Tickets and Conductors' Checks  
Our patent Card Press, enables us to supply a  
demand at Short Notice and in Unequalled Style

Also, Blank Books, ruled to any pattern, with  
or without Printed Headings, and bound in the  
most substantial manner.

With the numerous facilities for doing the Best  
Work, we feel no hesitancy in promising full sat-  
isfaction to all who may favor us with their or-  
ders.

**T. WRIGHTSON & CO.,**  
Railroad Record Office, 167 Water St. Cin.



## PRINTING.

RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC., printed neatly and with dispatch, at the

R. R. RECORD PRINTING OFFICE,  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

## RAILROAD IRON.

The undersigned are prepared to contract for the freightage of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via, Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired, WALKER & BERRY, Quebec & Kingston, Canada. BERRY & WALKER, Liverpool, England. Kingston. C. W., Sept. 13, 1853.

## PERU &amp; INDIANAPOLIS R. R.

Peru, Logansport, Wabash, Rochester, and Indianapolis.

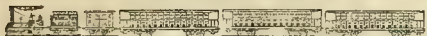
Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Freight Agt.  
Indianapolis, October 1, 1853

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.,—arriving at Urbana at 9.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.53 p. m.

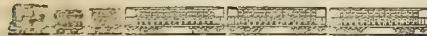
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.55 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-1f.

## Terre Haute &amp; Richmond R. R.



## Summer Arrangement.

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)  
Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 22½ hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 23, 1853

S. HUETIS Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

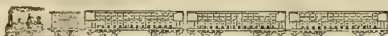
FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS  
IN OHIO.

Time as short to the Eastern Cities, as well as  
to Chicago and St. Louis, and Fare as  
Low as by any other Routes.



## Great Miami, [C. H. &amp; D.]

MAD RIVER AND LAKE ERIE,

CLEVELAND & TOLEDO,

AND

EATON & RICHMOND  
RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

## FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo, Chicago, and Cleveland—Same train connects at Dayton for Greenville, Union, &c., and at Forest for Lima, Delphos and Fort Wayne. This is the only direct route to the above places.

Passengers for the East take the cars of the Cleveland and Toledo road at Clyde, go into the same depot and make the same connections as by the Columbus route. As the Lake Shore roads depends more upon the trains from the West for their travel, and as this train makes sure connection at Clyde, passengers are less liable to miss the connection at Cleveland than by any other route.

(This train starts by Columbus time which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

## SECOND TRAIN.

Indianapolis Express, at 5 A. M., for Indianapolis, and all points North and West.

(This train also starts by Columbus time.)

## THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest and Bellefontaine for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua, also to Greenville, Union, &c.

## FOURTH TRAIN

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

## FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

## SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

RETURNING.—Trains leave Dayton as follows: at 5.15 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M., and 6.40 P. M.

TRAINS LEAVE HAMILTON at 5.54, 6.40 and 9.00 A. M., and 2.30, 4.49 and 8.30 P. M.

For tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Supt. C. H. & D. R. R.

E. F. OSBORN, Supt. M. R. & L. E. R. R.

E. B. PHILLIPS, Supt. C. & T. R. R.

D. M. MORROW, Supt. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m  
New York, Aug. 16th, 1853.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,

LAFAYETTE, PERU, & C.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.

feb. 8-ly WnRROpeSute M MterODn i,pu

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

South-western Car Works.

Madison, Indiana. May 11.

## GEO. D. WINCHELL &amp; BRO.,

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION &amp; FORCE PUMP

AND

## Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis,  
Chicago, Toledo, Detroit, Cleveland, Colum-  
bus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILA-  
DELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

FOR FREIGHTS IN EITHER DIRECTION  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

## Philadelphia and New York Railroads,

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,  
And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.  
je. 84

TO LOUISVILLE  
IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all  
the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 1.16 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.

Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-buses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,

Ag't Cin. and St. Louis Omnibus Line,

aug 2.

Office No. 2 Burnet House.

STEREOTYPE FOUNDRY,  
AND AGENCY OF  
L. JOHNSON & CO.'S TYPE FOUNDRY.

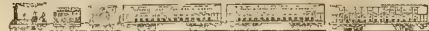
C. F. O'DRISCOLL, (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of  
STEREOTYPING,

Including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of  
Card and Job Type, Cuts, Rules, &c. &c.  
from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS of every kind.

AT THE FOUNDRY PRICES.  
C. F. O'DRISCOLL,  
168 1-2 Vine Street, Cincinnati, O.

## 1855. New Arrangement, 1855

## COMMENCING MONDAY, JULY 16.

LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.

FOUR DAILY EASTERN TRAINS, AT 6 A. M., 9 A. M.,  
10:20 A. M., AND 6 P. M.

The Quickest, Shortest, and Most Direct Route, both  
to and from Cincinnati and the East.

LAID WITH HEAVY T IRON.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland.  
Each and every train by the Little Miami route runs into the Depot of the Lake Shore Road at Cleveland.  
"The roads by this route are in very fine order," laid with heavy T iron, "remarkably smooth, and comparatively free from dust." Being the shortest and most direct route from Cincinnati to the East, the time is so arranged that it is made with ease. Connections are certain, and passengers have full time for meals.

All who take this route East will be sure to return by it, as this route makes the quickest time, both to and from Cincinnati and all the Eastern cities.

Lightning Express leaves Cincinnati at six A. M. for the E. st; arrives at Cleveland in advance of any other route.

Lightning Express arrives at Cincinnati at 2:45 P. M. from the East.

Leaves Cleveland fifteen minutes later, and arrives at Cincinnati fifteen minutes earlier than any other route.

CINCINNATI TO CLEVELAND in 8½ hours.

CLEVELAND TO CINCINNATI in 8½ hours.

Time via Little Miami Route from Cincinnati to

|                         |           |
|-------------------------|-----------|
| To Columbus in.....     | 3¼ hours. |
| To Cleveland in.....    | 8½ "      |
| To Dunkirk in.....      | 1½ "      |
| To Buffalo in.....      | 16 "      |
| To Albany in.....       | 26 "      |
| To New York in.....     | 30½ "     |
| To Boston in.....       | 35 "      |
| To Crestline in.....    | 14 "      |
| To Pittsburg in.....    | 14 "      |
| To Philadelphia in..... | 30½ "     |
| To Wheeling in.....     | 10 "      |
| To Baltimore in.....    | 26½ "     |
| To Washington in.....   | 29 "      |
| To Steubenville in..... | 12 "      |

Baggage checked from Cincinnati to Wheeling, Pittsburg, Cleveland, Dunkirk and Buffalo.

Passengers by the 6 o'clock A. M. Train, Little Miami Railroad, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

The Little Miami is the eastern Depot at Cincinnati.

## FIVE DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, Albany, New York, and Boston; Crestline, Pittsburg, Baltimore, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia, and New York, etc.; Steubenville; Sandusky and Detroit; Yellow Springs, and Springfield; Wilmington, Circleville and Lancaster. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Passengers by this train for Lake steamers have five hours and a half at Cleveland.

SECOND TRAIN.—Cleveland and Pittsburgh Express, leaves Cincinnati at 9 o'clock A. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline and Pittsburg; Blanchester, Chillicothe, and Hillsborough. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill. Also, connecting at Cleveland direct with Lake Steamers QUEEN OF THE WEST and CRESCENT CITY, and connects at Buffalo with the early morning trains for New York, Boston, Albany, Niagara Falls, Montreal, etc.

THIRD TRAIN.—Wheeling Express, leaves Cincinnati at 10:20 A. M., for Columbus, Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

FOURTH TRAIN.—Accommodation, leaves Cincinnati at 4 P. M., for Xenia, Yellow Springs and Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Xenia.

FIFTH TRAIN.—Cleveland, Pittsburgh and Wheeling Night Express, leaves Cincinnati at 6 P. M., for Columbus, Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburg, Philadelphia and New York; Zanesville, Wheeling, Baltimore, Washington City, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus, except Linwood and Branch Hill.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office

south-east corner of Broadway and Front streets, opposite Spencer House, or the eastern (Little Miami) Depot, East Front street.

Office hours from 4½ A. M. until 9½ P. M.  
P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

## Covington and Lexington Railroad.

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terre Haute, Vincennes and Lafayette.

THROUGH TICKETS to LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at LEXINGTON at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryansville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.20 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

FREIGHT TRAINS will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

## RATES OF FARE.

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthia.....    | 2 00   |

## FOR THROUGH TICKETS

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent.

The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at their stable on 4th street, betw Madison and Scott, Covington.

CLAYTON &amp; GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road. nov.15\*

## Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis &amp; Cincinnati Railroad.

VIA LAWRENCEBURG.

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.

Office, 31 Main Street, west side, 5 doors north of Madison House. SIDNEY RICE, Agent.

Cincinnati, Nov. 1, 1855.

## W. G. ATKINSON,

Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated  
Maps and Reports furnished; Researches made for  
Coal, Iron, Copper, Lead, or other Minerals,  
Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared.



## KENTUCKY LOCOMOTIVE WORKS.

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNYS & PECK,  
Louisville, Ky.

## Norris' Locomotive Works,



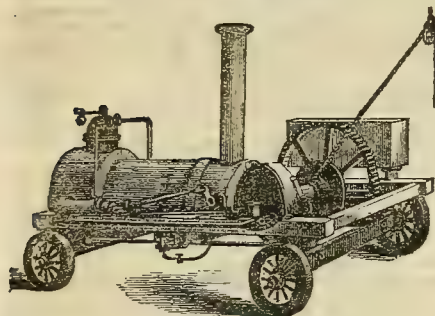
PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, off to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

Jy. 27. RICHARD NORRIS & SON.

A. L. ARCHAMBAULT'S  
PORTABLE STEAMHOISTING & PUMPING  
ENGINES;

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Fiske's Alley), Philadelphia. aug2 6m

## Mercurial Steam Gauges.

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

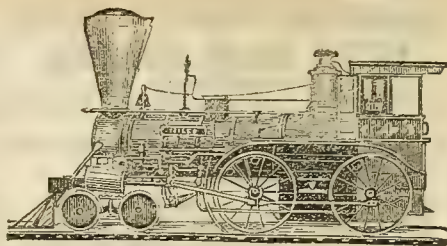
After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DERAND, FULTON and TILTON.  
Manufactured by J. M. BROWN.  
At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

## LOCOMOTIVE WORKS.



## NILES &amp; CO.,

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shuffling, &c. &c.  
Feb. 13 1855 6m.

## Lightner's Patent Axle Boxes for Railroad Cars

The attention of Railroad Managers and others is called to this valuable improvement in

## AXLE BOXES.

The first cost and "fitting up" of these boxes is 20 to 25 percent. below that of most boxes in use. They will save about 75 percent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONR TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber.

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.



## MATHEMATICAL INSTRUMENTS.

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF  
Surveyors' & Engineers'  
Instruments, Theodolites, Transits,  
Levels, &c.,

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

## SELLERS &amp; DANA,

AGENCY FOR THE SALE OF

## Railroad Materials and Machinery.

THIRD STREET, (west of Burnet House.)

CINCINNATI, OHIO.

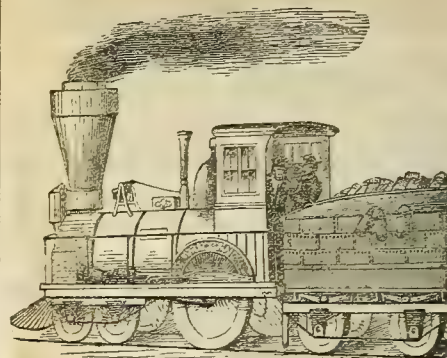
HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and Cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinery—Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

## Cincinnati Locomotive Works!



The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap 20

MOORE & RICHARDSON.

## WASON'S

## CAR MANUFACTORY,

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. & F. Wason, Springfield, Massachusetts.

## Railroad Car Findings

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Casting Fit

Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws.

## LOCOMOTIVE ENGINE LANTERNS,

From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

## Cotton Duck for Car Covering,

Of any required width to 124 inches.

## ENAMELLED HEAD LININGS

Plush and Curled Hair.

Hand Cars and Baggage Cars. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

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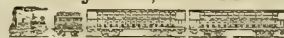
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Late Davenport, Bridges & Co., Fitchburg, Mass.

toc6

## CAR MANUFACTORY,

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E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 22 inch, adapted to inside or outside bearing; cast iron fliers, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

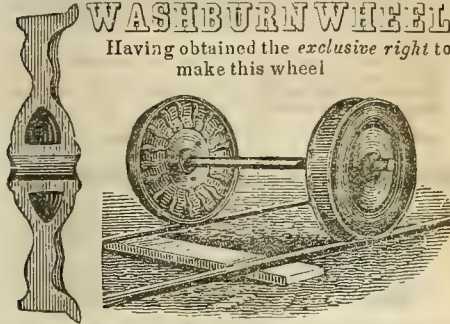
Dayton, Jan 24th. 1853.

Jan 25-4



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
ap.12 Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

DOUGLASS, SMITH & CO.,  
Muskingum Works, Zanesville, O.

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**DAVENPORT, RUSSELL & CO.,**

**Railway Car Manufacturers,  
MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having also joined himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

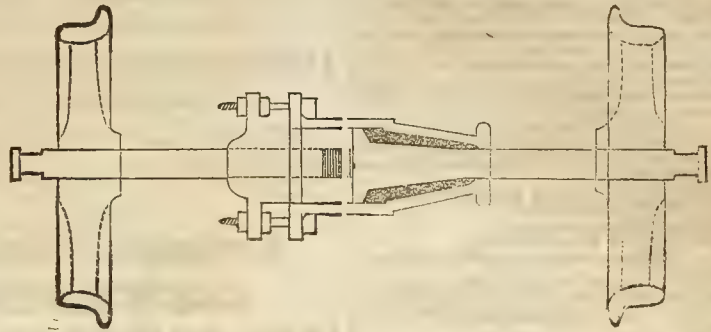
Feb. 16/8 JOSEPH DAVENPORT.

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## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty percent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track than its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

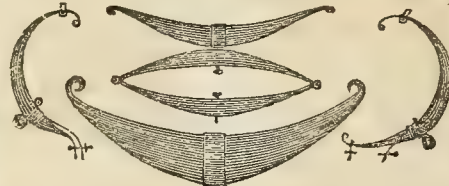
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UNBLE,**  
Gap, Pa.

## MCDANIEL & HORNER,

**LOCO-MOTIVE AND CAR SPRING**



## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

MCDANIEL & HORNER.

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

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NORRIS BROTHERS, Locomotive Builders, Philad.  
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U. WELLS, R. R. Car Manuf. Petersburg, Va.  
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May 19.

M. B. MILLEN, Gen. Supt. C. R. R. Savannah, Ga.  
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### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a.  
Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "  
Charles H. Fisler, Esq., "  
Jao. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.  
Pinckney Huger, Esq., Pres't N.E.R.R. Co.  
Oct. 13-14.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,

TRANSPORTATION DEPARTMENT, PENN. R. R.,

ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.

ENGINEER DEPARTMENT, NORTH PA. R. R.,

PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

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## Prosser's Patent. LAP-WELDED IRON BOILER TUBES,

Every article necessary to

### DRILL THE TUBE-PLATES

and to Set the tubes in the best manner. Tube Cleaners, Steel-Wire and Whalebone Brushes. Tubes for Artesian wells, Pump Shafts, Line Shafting, conveying Steam or Water, &c., &c. screwed together, flush on both sides, or with couplings either outside or inside; also expanded into Flanges. Free Joint Tubes for Core Bars, Railings, &c., Pall Lever Wrenches and Wrought Iron Blacksmiths' Tyes.

Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Ties, Plater's Rollers, Rifle and Gun Barrels, Cannon, &c.

THOMAS PROSSER & SON,

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### Leather Banding Manufactory,

No. 163 GREENWICH STREET,

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KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

### Oak-tanned Leather Belting,

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR

Aug. 9 ly

## SODA WATER APPARATUS!

### THE ONLY PATENT CAST IRON SODA WATER APPARATUS

IN THE UNITED STATES,

(Patented June 12, 1855.)

### FOR MANUFACTURING SODA WATER!

Also, every description of Apparatus, either for Drawing or Bottling of Soda Water. Also, the new SELF-TIGHTENING FAUCET, for water or any kind of Liquids, (Patent applied for 1855,) can be made of Brass, Lead, or any other metal, and Silver-Plated. It cannot be left open by carelessness or by children, nor be easily broken. It will out-wear any other Faucet now in use.

Also the new LUBRICATING APPARATUS, (Patent applied for 1855,) for oiling Valves and Cylinders and Throttle Valves of Steam Engines, Locomotives, Steam Pumps, &c. This Apparatus is Transparent, Self-Feeding, and not easily got out of order. It has a Glass Cylinder on the inside of a brass case, which holds the oil, and can be seen at any time when the oil is out. It will do either for Steam Vacuum or Journals. It is the best thing that could be made for Locomotives.

STEAM GAUGES on a new principle, manufactured and sold by

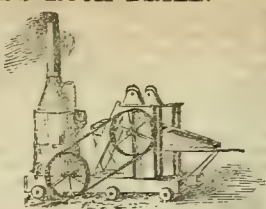
WILLIAM GEE,

68, Fulton Street, New York.

Dec. 5, 1855.—ly

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying, &c., and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



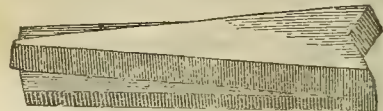
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

## Important to Railroad Companies, etc.



### Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, &c., by means of this valuable discovery, manufacturing

### RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

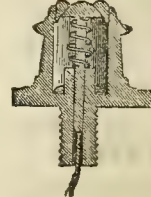
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
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# Railroad Record.

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CINCINNATI:

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LLOYD'S STEAMBOAT DIRECTORY.—We are indebted to the publishers for a copy of this long expected work. It is a handsome volume of 326 pages, illustrated with over 100 graphic woodcuts representing early life on the western waters, and the various explosions and disasters which have rendered our western rivers so much a terror to travelers. The work was printed in Philadelphia, and is got up in handsome style.

We are glad that this work has made its appearance, as it relieves ourselves from some of the odium of its delay, on the part of those who are incredulous. The publishers, in their circular, feeling the importance of having some known firm in connection with their work, without our consent stated that it would be published at the office of T. Wrightson & Co. in October. Since October, we have been several times called upon by their subscribers, who were not always satisfied when we told them that we knew nothing of the work, and had no connection with it. We are therefore glad that it has appeared, as it will doubtless satisfy the expectations of those who subscribed for it.

### THE EUROPEAN IMPORTATION AND THE AMERICAN EXPORTATION OF GRAIN—THE FUTURE OF INDIAN CORN.

We have been considering, in several articles, the *tendency* of modern civilization to diminish the relative supply of bread, and consequently to increase prices, poverty and the dependence of some countries and some classes upon others. The object of all political economy is the same, and may be briefly defined—to make *bread* certain, abundant and cheap; in other words to make the means of subsistence easy and sure. Judged by this standard, the political economy of Europe is gradually tending towards starvation. This sounds harsh, and is certainly quite contrary to the general ideas entertained of those wealthy and renowned countries. But, it is not easy to escape this conclusion, if we look steadily at the facts and their bearings. We need not refer to the Irish famine, which was most clearly referable to the accumulation of too great a population on a given space, or to the frequent political convulsions occasioned by the want of bread in France. These are only like occasional boils, symptoms of a general disease, which affects the blood and constitution of the people. Let us refer to some facts which are unmistakeable. Let us take the importation of breadstuffs, by the great controlling countries of Europe, France and Great Britain for example. The following is the number of bushels of Corn, (grain) Flour and Meal, imported into Great Britain for the last forty years, reduced from the British quarter, and arranged in period of five years:

|                                    | Bushels.    |
|------------------------------------|-------------|
| From 1815 to 1819 (Inclusive)..... | 61,262,020  |
| From 1820 to 1824 “ .....          | 47,263,835  |
| From 1825 to 1829 “ .....          | 113,999,225 |
| From 1830 to 1834 “ .....          | 107,768,420 |
| From 1835 to 1839 “ .....          | 119,010,055 |
| From 1840 to 1844 “ .....          | 141,992,065 |
| From 1845 to 1849 “ .....          | 231,704,835 |
| From 1849 to 1854 “ .....          | 236,050,445 |

This table shows that in forty years the importation of foreign grain into Great Britain had steadily advanced from twelve up to nearly fifty millions of bushels per annum! The steadiness of increase in the importation of grain proves conclusively, what we have already shown in another way, that the artisan and civic portion of the people are increasing much faster than the agricultural. Now, let it be observed, up to 1765, England was an *exporter* of “corn,” or grain. From that date to 1780, exportation and importation fluctuated. But from 1780 to the present time, the importation of breadstuffs into Great Britain has been constantly increasing.

France, also, is now a constant importer of grain; not merely in this year, in which she must import immensely, but is permanently in the condition of deficiency. Of Germany, parts, such as Prussia, have usually exported grain; but even that is ceasing to be the case, and this year a large part of Germany imports breadstuffs.

Spain and Italy usually supplies themselves but seldom export. It comes to this then, that Russia, Prussia, and some small districts in Europe, are the only countries which produce a surplus, while the largest nations of Europe *permanently import*. Nor is this all, the amount imported into these countries is constantly increasing. We have, then, in Europe, *two conditions* established, which are dangerous to the peace, if not the existence of the present social system.

1st. The constant tendency of population to cities and towns, by which the agricultural population is proportionably reduced.

2d. In consequence of this deficiency of agricultural labor, the principal nations of Europe are *permanently dependent upon other nations for their bread*.

This being the established law of European Political Economy, the great object of economists there, is to find countries which can supply them, and procure their bread there. At the commencement of this condition of deficiency, Prussia and Russia were almost the only countries looked to; but, of late, Europe looks to the United States, and it is absolutely certain that if the United States cannot supply them, they will, before many years, be in a state of starvation. For history shows no example of the inhabitants of cities and towns correcting the deficiency of agricultural products by returning to agricultural employment. On the contrary, in Egypt, Rome, and all ancient countries, they have awaited famine and conquest (the result of weakness) rather than return to agriculture, and restore the equilibrium of society.

We shall not here stop to notice, as we have done in a former article, the fact that the *tendency* of society in the United States is to the same great social evil. This fact is now apparent, and if this tendency is not corrected, we shall cease to have any superiority as an agricultural people. At present, however, we can still supply a surplus of breadstuffs to those countries which need them; but we cannot supply Europe, or even Great Britain, with bread, if that depends on *wheat* alone. Our surplus of wheat has never equalled in the average, more than half the wants of Great Britain alone. This will be seen by comparing the imports of wheat and flour into Great Britain, from the United States, and from other countries. Besides that, our production of wheat *does not keep up with the growth of our population*; so that in time, if this disproportion exists, we shall not more than supply ourselves with wheat bread. This is a conclusion to which we must look as extremely probable, unless greater attention is paid to agriculture.

In the *Record* of December 20th, 1855, we gave a table of the *relative increase* of the several crops of cereal, as compared with the increase of population, from 1840 to 1850,



showing clearly that all the had grain crops *relatively* fallen back, except that of Corn (maize), which, alone, had increased; and that to a large amount. We repeat the results of that table here, that it may be clearly seen what is the basis of our calculations for the future. The deficiency, &c., are calculated only *relatively to the increase of population.*

## DEFICIENCY.

|             | Bushels.   |
|-------------|------------|
| Wheat ..... | 15,000,000 |
| Rye .....   | 11,000,000 |
| Oats .....  | 20,000,000 |

46,000,000

## INCREASE.

|                    |            |
|--------------------|------------|
| Corn.....          | 61,000,000 |
| Gain, in all ..... | 15,000,000 |

It seems, therefore, that 26,000,000 bushels of Rye and Oats (used for whisky and animals) have been substituted by the use of Indian corn. In regard to wheat, it is uncertain how far it has been substituted by corn.

These facts indicate two things very plainly, viz:

1st. That Indian Corn is gradually taking the place of other grains in uses, for which it is equally adapted.

2d. That notwithstanding this, its growth is increasing *more rapidly than that of the population.*

These facts are conclusive of a great agricultural principle: that in our country, Indian Corn is the great CEREAL STAPLE, and that with GRASS it must be the great basis of future production, both in regard to men and animals.

But while we discover this fact in our country, we discover that precisely the reverse is the case in other countries. Indian Corn is *not* the staple of any country out of America. The necessary consequence of this, is, that as the wants of Europe for breadstuffs increase, they must be supplied with the only staple article of grain which America can afford to send—that is Indian Corn. This is one of the inevitable results of the state of civilization and commerce, which has grown up in the last half century. The effect of that condition of things is *gradual* but *certain*.—Prior to 1845, we exported scarcely any Indian corn to Europe, either in bulk, or in pork or whisky, which are but the equivalents of corn. With the Irish famine commenced the era of Indian corn exportation. Leaving the years 1846–7–8 out of view, the increase of corn exportation has been gradual, but regular. We give below the average export of corn and pork, in 1837–8–9, and the average of the same articles in 1852–3–4.

|                                                                   |                  |
|-------------------------------------------------------------------|------------------|
| Average export of Corn in 1837–8–9.....                           | 962,000 bushels. |
| Average value of Pork, Lard, and Bacon in 1837–8–9.....           | \$1,538,268      |
| Average amount of Corn exported in bulk and Pork in 1837–8–9..... | 3,266,948        |
| Average amount of Corn exported in 1852–3–4.....                  | 7,892,000        |
| Average value of Pork, Lard, and Bacon exported in 1852–3–4.....  | \$5,682,000      |
| Average amount of Corn exported in bulk and Pork in 1852–3–4..... | 14,369,493       |

We see by the above tables that the ave-

rage amount of Indian corn exported to Europe, has increased nearly five-fold in eighteen years. It doubles in about seven years, leaving out the great increase occasioned by such contingencies as the Irish Famine.—Such is the condition of Europe, however, that this increase will now proceed with accelerated velocity. There can be no doubt that the period is not far off, when we shall export in bulk and in pork, beef, lard and tallow, more than *one hundred millions of bushels of corn per annum*, and when this export, and that of wheat, oats and rye, will be more valuable than that of cotton, rice and sugar.

It is true that the *tendency* of population towards cities, towns, and civic arts, by which a great and injurious diversion is made from agricultural labor, may be checked by the high profits of agriculture, but it is not probable. Man is a gregarious animal, and although looking ruin steadily in the face, as he did in Rome and Hindostan, and as he does now in China; he is loath to leave the seductions of cities and the pleasures of the arts, till ruin has come, and reformation is impossible.

## STATISTICS OF NAVIGATION—STEAMBOATS.

The Annual Report on Commerce and Navigation is always an interesting document. If carefully examined, it will disclose many of the springs of commerce which we do not find in any other work. Looking over the statistics of steam navigation, we find some interesting facts. Steamboat building, which, in its commencement, increased with great rapidity, is now very much slackened; yet it still increases at a decided ratio. No steamboats were enrolled till 1823, and then only fifteen. Dividing the years, since 1825, into periods of *five* years each, we have the following results:

|                                         |       |
|-----------------------------------------|-------|
| Steamboats built from 1826 to 1830..... | 196   |
| “ “ 1831 to 1835.....                   | 297   |
| “ “ 1836 to 1840.....                   | 538   |
| “ “ 1841 to 1845.....                   | 620   |
| “ “ 1846 to 1850.....                   | 965   |
| “ “ 1851 to 1855.....                   | 1,286 |

If we suppose the average life of a steamboat to be about 7 years, there are now in existence about 1,700 steamboats. The number in 1851 was 1,500, showing a gradual increase. The Steamboat tonnage of the United States is principally enrolled, or licensed, in the following ports, viz:

|                          | Tons.   |
|--------------------------|---------|
| New York.....            | 107,692 |
| Pittsburg.....           | 81,896  |
| New Orleans.....         | 62,632  |
| St. Louis.....           | 52,477  |
| Detroit.....             | 32,180  |
| Buffalo.....             | 38,262  |
| Cincinnati.....          | 28,713  |
| Philadelphia.....        | 26,252  |
| Louisville.....          | 22,680  |
| Mobile.....              | 20,515  |
| Baltimore.....           | 16,340  |
| Cleveland.....           | 15,012  |
| San Francisco.....       | 14,279  |
| Charleston.....          | 9,177   |
| Perth Amboy (N. J.)..... | 9,114   |
| Boston.....              | 8,275   |

These are the large ports for steamboat navigation. The great divisions of rivers, lakes and seaboard, are as follows:

|                                                   | Tons.   |
|---------------------------------------------------|---------|
| Steamboat Tonnage Enrolled on the Ohio River..... | 144,473 |
| Residue of the Mississippi Valley.....            | 129,050 |
| Steam Tonnage of the Lakes.....                   | 106,154 |
| Steam Tonnage on the Atlantic Seaboard.....       | 261,283 |
| Steam Tonnage on the Pacific Coast.....           | 14,279  |
| Aggregate.....                                    | 655,239 |

It will be seen that the steamboat tonnage of the Mississippi valley, including that of the Ohio, amounting to 273,523 tons, is greater than that of the entire Atlantic coast.

The principal points for the *building* of steamboats, are Pittsburg, New York, Cincinnati, Louisville and Detroit; which, together, build more steamboats than are built in all the rest of the U. S. Wherever boats may be enrolled, in the valley of the Mississippi, nearly all of them are *built* at Pittsburg, Cincinnati and the Falls of the Ohio. These ports built, in 1854–5, about 100 steamboats.

The ocean steamboat building has not increased so rapidly, as it was at first anticipated. The reason is obvious. The ocean boats are immensely expensive, not merely in building but also in running. The prices, therefore, of transportation, are high, and thus the great bulk of both passengers and freight take the “lines,” as they are called, the sailing packets. The ocean steamers, however, will increase, and in time, take the place in a great degree, of sailing vessels.

## SALINE COAL AND MANUFACTURING COMPANY.

We have received the report of the President and Directors of this Company, and have been much interested in its contents. The object of the company is to mine iron, coal and salt on their lands near the mouth of the Saline river, Illinois. For this purpose they have one of the most valuable tracts to be found anywhere in the mineral regions of the United States. It is located just where the great Middle Coal-Field intersects the Ohio River; this being actually at the lowest point at which the coal region is accessible to the inhabitants of the lower Mississippi. It has therefore, superior facilities for the supply of coal to the lower country. But it is not merely for coal this tract is valuable. It has abundant supplies of the best iron ore, as well as salt-water and fire-clay. To give a clear idea of the property of the Saline Company, we shall make some extracts from the very interesting Report of the President. The property of the Company commences about two miles below the mouth of the Saline, on the Ohio river, (106 miles above its mouth) in Hardin county, Ill., and up the Ohio two miles to the mouth of the Saline. On the Saline it has eighteen miles of front, and embraces all the seams of the lower measures of the Middle Bituminous Coal Field of the Mississippi, with the seams of the iron part



coming to it. The Saline is navigable, at all seasons, to about three miles up, where the Company have saw-mills, machine and workshops.

Of the Iron Ore, Mr. Sellers, the President, thus speaks:

"The little Saline enters the big Saline about one mile and a half above the mouth of the latter, and has its source in a depression of the ridge dividing the head waters of Big Creek from those of the little Saline. This sandstone ridge being the division between the coal formation and the carboniferous limestone which bears the brown hydrated oxide of iron, or hematitic ore, which occurs on the estate of the Company, immediately joining this ridge. The valleys of the streams and the depression of the ridge afford easy grades for a railroad, to connect the hematitic iron ore with the coal field. We have here more than 4,000 acres of this class of property, in which the ore occurs in large surface deposits, the overflow of crevices which traverse the limestone in determinate lines of fracture.

On this estate there are three of these parallel fissures—one twenty-four, and one twenty-seven feet in width. The width of the other has not been determined—one of its walls only having been discovered. These are crossed at right angles by another fissure, twelve feet wide. It is believed that these are the only crevices hitherto discovered in the world bearing hematite iron ore."

This supply of iron will be amply sufficient to carry on the most extensive iron works, and that is one of the great objects of the Company. To make railroad iron at one of the most favorable points in the United States is one of the main objects of the Company.

Of the Coal property, Mr. Sellers, the President, thus speaks:

"Our coal estate commences on the Saline adjoining the city plot, (Suwano), two miles above its mouth, and extends up along the course of that river, over eight miles, including for the most part, both of its shores, and embracing an area of about six thousand acres. The coal measures on this estate have a vertical thickness of 850 feet, in which occur no less than thirteen seams of coal, seven of which we consider workable, being from three feet to five feet six inches thick, in all, an aggregate thickness of thirty-two feet. Several of the other seams are two feet six inches thick, which are not considered workable, so long as the thicker ones are accessible.

Interstratified with the coal, are no less than six seams of carbonate of iron occurring in the shales. For their thickness and analysis, and their proportion to the shale, we refer to Dr. Owen's report. It is sufficient here to state, that in every square mile there is enough to produce (if all taken out) over five millions of tons of iron, or 7,312 tons per acre."

The objects and desires of the Company at present are stated in the following paragraphs.

"We have begun this enterprise with no speculative views; but for the profitable employment of our own capital, and, to a certain extent, the capital of those who may choose to join us at this stage of our progress. We know that even with the limited amount of

improvements which our means have enabled us to make, the products will sustain the Company, and give a reasonable dividend to its shareholders.

But the amount of improvements is so disproportioned to the mineral resources of the property, that we would gladly accept further tenders to the amount of a million, or, at most, a million two hundred thousand dollars.

This addition to our capital would enable us greatly to extend our coal product; would build four blast furnaces and one rolling mill; would develop our salt to a production of five hundred bushels per day, and give us an ample money capital for the conduct of the business of the Company.

With these additions to our present constructions, we entertain no doubt that the profits on our manufacturing and mining operations will pay a dividend to the shareholders of at least ten per cent. per annum, and leave an annual surplus for the further development of the property upon a scale quite equal to our original design, and create a fund sufficiently large to carry on the business of the Company independently of outside aid."

The conclusions and statements of the Report are fortified by the very able and interesting Report of Dr. Owen, the geologist.

In conclusion, we may add that we see no reason why the Saline Coal and Manufacturing Company should not prove one of the most profitable in the United States. It has all the elements of success.

#### STATISTICS AND POPULATION OF NEW YORK

The State of New York takes a Census semi-centennially, (once in five years) which gives the exact statistics of the State. By the census of 1855, New York has 3,470,059 inhabitants. By referring to the past census of that State, we find the following to have been the increase for the last thirty years:

| In 1825..... | 1,616,458 | Increase.  |
|--------------|-----------|------------|
| In 1830..... | 1,923,522 | 19 pr. ct. |
| In 1835..... | 2,174,517 | 13 "       |
| In 1840..... | 2,425,921 | 12 "       |
| In 1845..... | 2,604,495 | 7½ "       |
| In 1850..... | 3,097,394 | 19 "       |
| In 1855..... | 3,470,059 | 12 "       |

The growth of New York for the last ten years has been almost exclusively in its cities and towns. Many of its agricultural counties have positively diminished in population; thus affording an illustration of the principle we have laid down, that the civic population is now increasing at the expense of the agricultural. The consequence of this is, that the products of agriculture will diminish relatively to the demand, and this in turn will check the growth of cities, or impoverish them.

#### EXPOSITION OF RAILROADS IN OHIO.

We observe that some of our cotemporaries are publishing an account of railroads finished in the United States, which are very incorrect. They make about two thousand miles of finished railroads more than we do, and they do it by counting twice, in many cases, the parts of roads run by one or more companies; and in the other cases by count-

ing as finished what are only in progress.—For example, in an article published by the *American Railroad Journal*, the railroads of Ohio are set down as being two thousand seven hundred and twenty-five miles. Now the following are all the railroads of Ohio finished, or have yet commenced running, viz:

|                                            | Miles. |
|--------------------------------------------|--------|
| Little Miami.....                          | 84     |
| Xenia and Columbus.....                    | 55     |
| Cin., Cleveland and Columbus.....          | 135    |
| Cin., Hamilton and Dayton.....             | 60     |
| Dayton and Michigan.....                   | 28     |
| Mad River and Lake Erie.....               | 153    |
| Findlay Branch.....                        | 15     |
| Eaton and Hamilton.....                    | 41     |
| Dayton, Western and Central.....           | 56     |
| Greenville and Miami.....                  | 47     |
| Cincinnati and Hillsborough.....           | 37     |
| Cincinnati and Marietta.....               | 92     |
| Dayton, Xenia and Belpre.....              | 15     |
| Springfield and Columbus.....              | 20     |
| Cincinnati, Wilmington and Zanesville..... | 131    |
| Springfield, Mt. Vernon and Pittsburg..... | 50     |
| Columbus, Piqua and Indiana.....           | 72     |
| Scioto and Hocking Valley.....             | 62     |
| Iron.....                                  | 13     |
| Central Ohio.....                          | 141    |
| Sandusky, Mansfield and Newark.....        | 116    |
| Ohio and Pennsylvania.....                 | 141    |
| Ohio and Indiana.....                      | 142    |
| Cleveland and Pittsburg.....               | 110    |
| Tuscarawas Branch.....                     | 32     |
| Cleveland and Indianapolis.....            | 118    |
| Cleveland, Zanesville and Cincinnati.....  | 61     |
| Steubenville and Indiana.....              | 115    |
| Cleveland and Erie.....                    | 70     |
| Cleveland and Toledo, (S. D.).....         | 87     |
| Do do (N. D.).....                         | 107    |
| Northern Indiana Air Line.....             | 72     |
| Toledo and Illinois.....                   | 76     |
| Toledo and Adrian.....                     | 16     |
| Ohio and Mississippi.....                  | 20     |
| Cadiz Branch.....                          | 7      |
| Carrollton Branch.....                     | 20     |
| Mahoning.....                              | 30     |
| Aggregate running.....                     | 2,473  |

In this list we have considered every road as terminating at the *State line*, and if the design be to give the railroads of a *State*, this is correct, though commercially it is not convenient.

The *American Railroad Journal* has forty miles more than we in the Mad River road, which is probably the old track. It has forty miles in the Ohio & Pennsylvania road which are not in Ohio. It has twenty miles more than there are in the Marietta & Hillsborough road; It has four miles more in the Dayton and Xenia; six more in the Dayton and Western; four more in the Eaton and Hamilton, with two or three other errors.

#### INDIANA CENTRAL RAILROAD.

At the Annual election of the Indiana Central Railroad Company, held at the office of said Company, on the 7th instant, Chas. Parry and Samuel Hannah, of Indianapolis, John T. White, of Raysville, William Petty of Cambridge city, David Commons, John S. Newman, Joseph W. Jackson and Wm. S. T. Morton, of Centerville, were unanimously elected Directors.

The Board organized by the election of the following officers:

John S. Newman, President.

Charles Parry, Vice President.

John M. Commons, Secretary,

Samuel Hannah, Treasurer.

Jas. M. Smith, Superintendent.

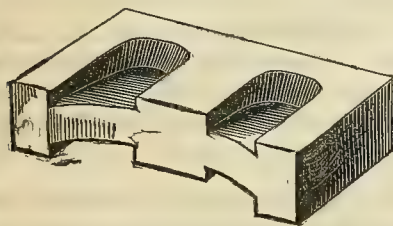
Henry L. Pope, Assistant Superintendent and Railroad Master.



# CONKLING'S PATENT BRICK—NEW AND SUBSTANTIAL BUILDING MATERIAL.

There is no class of improvements of greater value, or more general importance than those which relate to improvements in materials for building. And there are also none which has received so little scientific investigation or attention from those more competent to make improvements in them, as this same class of building materials. Wood, stone, iron, brick and building blocks, made of sand and lime, have all been used, and it is still asserted that some other material must be found either cheaper or more durable.—Now, while considerable attention has been bestowed on the selection of material, little advance has been made in the form in which that material has been used. Bricks, for instance, of the present day, are substantially the same as the bricks of the pyramids; they are simple parallelopipedons of clay made hard by the action of fire.

Now the improvement, the name of which stands at the head of this article, consists in giving to the material a better form to secure uniform hardening in the kiln, and at the same time to obtain the means of cementing the wall with perfect certainty. The form of the brick, as shown in the accompanying cut,



in general appearance resembles the common brick; the back edge is hollowed in the form of a curve, and on the upper and lower sides are dove-tail indentures also of regular shape. Now, it is easy to see that when a wall is laid up with these bricks, and grouted well with good mortar, it becomes a solid mass of great strength and compactness. It will also be seen, that with these peculiarities the bricks in the kiln are exposed more fully to the action of the fire than the ordinary brick can by any possibility be. Hence they are rendered hard through their entire substance.

**MANUFACTURE OF THE BRICK.**—The manufacture of the improved brick requires no greater skill nor labor than that of the ordinary brick. For common mould brick, the cavities are made only on the lower side, but deeper. Hence the ordinary mould, with pieces of wood of suitable shape placed on the bottom, is all that is required. The clay of proper consistency is forced into the mould as usual, and smoothed at the top with the ordinary scraper. For pressed brick, the cavities may be made either on one or both sides of the brick, as may be desired.

The burning of the brick is performed in a kiln as usual. But as the cavities of the

brick admit the hot air thoroughly to every portion of the substance, there is less liability to warp and shrink unequally. The cavities aid the action of the fire in the interior of the brick and consequently materially reduce the time of burning. A saving of full *twenty per cent.* in the amount of fuel is thus obtained. Thus brick may therefore be made *cheaper and more uniform in shape and density* than ordinary brick.

**LAYING THE BRICK.**—The improved brick are laid in the usual manner, breaking joints, with as thin a layer of mortar between the courses as can be put there, and grouted well with good mortar. They are laid as expeditiously as common brick and much more so than fine front brick when well pointed. The cementing of the wall by the grouting filling up, the dove-tail cavities being thus scientifically provided for, there can be less deception in making perfect joints, than with ordinary material. The grouting of common brick is always liable to imperfection, owing to the spreading of the mortar in the thick joints and stopping the flow of the grout. This cannot be the case with the improved brick, as the spaces are of sufficient size to prevent such an accident.

The appearance of a wall laid with these brick is much finer than that of one laid with common brick. The brick being of uniform shape and size, and laid with thin courses of mortar, gives a much more regular and handsome appearance than can be obtained with the best quality of ordinary brick.

A saving of ten per cent. of material is thus accomplished, by which a larger quantity of brick can be made from the same amount of material and a considerable reduction effected in cost of transportation, where bricks are exported.

**ECONOMY OF ROOM.**—Among the most important advantages of these brick, may be mentioned the great solidity of the walls built of them, and consequent economy of room. Walls built of this material are fully *one-fourth* stronger than those built of common brick. Hence *one-fourth* the room occupied by walls of ordinary brick can be saved by the use of the improved brick. This in large cities, where ground can only be bought by covering it with gold, is an object of the first importance.

**DURABILITY OF BUILDINGS.**—One of the cause of waste and delapidation and consequent loss in ordinary buildings is the action of the weather on the thick mortar joints of the brick walls. This is entirely obviated by the improved form of the brick. The uniformity of sizes and shapes enables the mason to make the thinnest possible joints, and consequently gives the least possible opportunity for waste by rain and frost. The millions of capital now invested throughout our country in brick walls, unscientifically con-

structed, which are constantly crumbling from the action of the weather, are just so many millions of lost capital every twenty or thirty years. These millions may be saved by the use of more substantial and durable materials.

**SAFETY FROM FIRE.**—One of the great causes of loss by fire is the imperfect cementation of walls. In laying ordinary brick the mason often carelessly leaves large spaces unfilled with mortar, and that too, not unfrequently around the flues of the chimneys.—These defects are of such a nature that they cannot be discovered after the wall is erected. The result too often shows itself in the burning of the best and most elegantly constructed mansions.

Such being the character of this improvement, it is obvious that the best buildings will ultimately be constructed of this improved material, both on account of durability, finish, cheapness and safety. Master Masons and Carpenters purchasing county rights will thus be able to control the erection of the best and most profitable buildings in the counties where they reside, and thereby secure contracts, which they could not otherwise obtain.

The patentee of this valuable improvement is Edgar Conkling, Esq., of Cincinnati, office 106 west 4th street. Parties wishing further information will please address the patentee, enclosing postage stamp to pay postage on circulars giving full information.

**THE LATE ACCIDENT ON THE HUDSON RIVER RAILROAD.**—Last week a serious accident occurred on the Hudson River Railroad, which resulted in the immediate death of three persons and the injury of several others. Mr. Sloan, President of the road, gives the following account of the cause of the accident:

"The Albany train started from Poughkeepsie at 2.50 P. M. The conductor of the Poughkeepsie train did not wait ten minutes, according to the rule, but in five or eight minutes, as he claims, started his train. A flagman, suspecting that a defect in the rail might be unsafe, flagged the Albany train to stop, and it did so. From it went back a flagman to stop the coming train, but a curve in the road, the icy state of the track, and the fact that the coming train was led by two engines, prevented its being seen in time to brake up.

No two conductors on the road were better men than the two whose trains thus came in contact.

The Company had taken off its freight trains to prevent accidents—they thought they had provided against any possible damage."

This, although the most fearful, is not the first accident of this character that has happened on this road. There seems to be a recklessness in the management, which allows one train to follow another at such dangerously short intervals, that ill accords with the responsibility of this, and every railroad, to the public, for the safety of those who trust their lives to its care. The managers who will al-



low two such accidents to arise from a similar cause, have a fearful account to render at the bar of public justice. *Perhaps* the stock of the Company will *rise*, under the influence of such accidents.

## Railroads.

### HOUSTON AND HENDERSON RAILROAD.

Verily, Houston has a railroad. The long wished for event, the laying down of the track for the iron horse, is fairly and most auspiciously begun. As fast as the track-layers can work there is now nothing to interrupt the progress of the present section of 25 miles. The grading is complete, the ties are nearly all on the ground, every bridge is up and the culverts all in or ready to put in. Without hesitation we pronounce the work equal to any in the United States, in all respects, except that in bridges and culverts we are compelled for the present to use wood instead of stone. As wood work, however, it is not only well made and as strong as possible, but durable, red cypress being generally used. This road has one merit over all other similar enterprises in the State: it was not commenced as a speculation, but as a commercial desideratum or necessity, and every dollar expended in the earth-work, bridges, ties and culverts has been subscribed and raised at home. A great many disappointments and discouragements have attended the work, but at last day-light appears, the snort of the iron horse echoes through the woods, and the rails will not cease to be laid until Red River is reached on the North and Austin on the west.

The stock has been raised for the greater part of the 2d section of the road, and before the 10th of January contracts will have been taken by well-known and wealthy planters to prepare about thirty miles for the rails by the 1st of July next. Grimes county has yet to be canvassed, and with the balance of the quota apportioned to Washington and Austin counties, which will be speedily raised, there will be ample stock to complete the second section. The people have got in earnest and are disposed to save the twelve and a half per cent. now lost on the cotton crop by the existing modes of transportation. Burleson, Bastrop, Caldwell, Hays, Burnet, Williamson and Bell counties will be canvassed for subscriptions to the Austin trunk of the road, and all the counties above the Navisota and between the Brazos and Trinity including also McLennan, Milam and a part of Burleson, will be canvassed for subscriptions to the Red River trunk. Twelve months from the 1st of September next, with good luck, will witness the advent of the locomotive on the edge of Washington and Grimes counties. The vast wealth of the river counties responds nobly to the call of the company, and the rapid prosecution of the work beyond depends on the public spirit of the other counties named. Gentlemen, if you want railroads, if you wish to give value to your crops; in short if you would make agriculture remunerative, and by increasing the economies of producing and the value of the things produced, if you would have the country settled up, lands rendered valuable and your homes made desirable, step forward and aid in building the railways. Help yourselves before you call on Hercules, and thus entitle yourselves to the sympathy and aid of others.—*Houston (Texas) Telegraph.*

### OHIO & INTERNAL IMPROVEMENTS—GOVERNOR'S MESSAGE.

The following from the message of the Governor of this State represents the interest of Ohio in her Internal Improvements:

The State owns stock on the following turnpikes, railroads and canals, to the amount nominally indicated:

#### TURNPIKES.

|                                                                    |              |
|--------------------------------------------------------------------|--------------|
| Batavia Turnpike and Miami Bridge.....                             | \$ 30,250 00 |
| Cincinnati, Montgomery, Hopkinsville. Rochester & Clarksville..... | 52,400 00    |
| Cincinnati & Harrison.....                                         | 86,050 00    |
| Cincinnati and Hamilton.....                                       | 44,850 00    |
| Cincinnati, Columbus and Wooster.....                              | 75,800 00    |
| Cincinnati and Xenia.....                                          | 178,650 00   |
| Circleville and Washington.....                                    | 71,995 00    |
| Coleman, Oxford and Brookville.....                                | 85,775 47    |
| Dayton and Springfield.....                                        | 55,450 00    |
| Dayton and Covington.....                                          | 31,480 00    |
| Dayton, Centerville and Lebanon.....                               | 49,450 00    |
| Dayton Western.....                                                | 66,900 00    |
| Great Miami.....                                                   | 57,199 89    |
| Goshan, Wilmington and Columbus.....                               | 162,725 00   |
| Hamilton, Springfield and Carthage.....                            | 33,450 00    |
| Hamilton, Rossville Darrown, Oxford and Fairhaven.....             | 49,742 00    |
| Hamilton, Rossville, Somerville, Newcomb and Eaton.....            | 49,925 00    |
| Jefferson, South Charleston and Xenia.....                         | 42,300 00    |
| Marietta and Newport.....                                          | 15,000 00    |
| Milford and Chillicothe.....                                       | 162,346 62   |
| Ohio Turnpike.....                                                 | 55,000 00    |
| Portsmouth and Columbus.....                                       | 78,268 87    |
| Ripley and Hillsborough.....                                       | 56,375 00    |
| Steubenville, Cadiz and Cambridge.....                             | 20,694 20    |
| Urbana, Troy and Greenville.....                                   | 22,175 30    |

Total amount of Turnpike Stocks.....\$1,587,463 44

#### CANALS.

|                                |              |
|--------------------------------|--------------|
| Cincinnati and Whitewater..... | \$150,000 00 |
| Pennsylvania and Ohio.....     | 420,000 00   |

Total amount of Canal stock.....\$570,000 00

#### RAILROADS.

|                                                 |              |
|-------------------------------------------------|--------------|
| Little Miami Railroad Stock.....                | \$221,200 00 |
| Mad River and Erie Railroad Stock.....          | 395,800 00   |
| Dividend Bonds.....                             | 43,000 00    |
| Mansfield and Sandusky City Railroad stock..... | 33,333 00    |

Total amount of Railroad Stocks & Dividend Bonds.....\$693,333 00

Total amount of Stock held by the State in Turnpikes, Canals and Railroads.....\$2,860,796 44

The policy of uniting or entering into partnership with individuals or companies for the construction and carrying on of enterprises like these has long since been abandoned. These stocks should, therefore, be sold at whatever prices they will command, and the proceeds be applied to the payment of State debt. Their cash value is estimated at from eight hundred thousand to a million of dollars.

If the policy of a renewal of a portion of the loan due January, 1857, be adopted by the General Assembly, it will then be worthy of the most serious consideration whether the renewal shall be for a single period, or so arranged with reference to the maturity of the other debts of the State as to have for each year a sum falling due to be absorbed by the operations of the Sinking Fund.

I am well aware of the temptation afforded by the premiums which can be obtained for the stocks of a State occupying the proud financial position of Ohio, if the loan should have a long time to run. I know that at least fifteen per centum could be commanded for a twenty years' loan, and that this would amount on a renewal of two millions, to three hundred thousand dollars. But we must not shut our eyes to the fact that the credit of Ohio is strong because of her persistence in the determination to relieve herself of all indebtedness—a policy which is now secured by the sacredness of constitutional obligation—nor to the fact that premiums upon renewals depend upon the condition of the money market, which is controlled more by the state

of Europe than by the condition of affairs in Ohio. Besides, the opinion that a postponement of the further payment of the public liabilities would, to that extent diminish the taxes, is proved to be erroneous, as well by experience as a correct appreciation of the very plainest principle of political economy. The usual effect is the application of an equal or still greater amount to other and less useful objects.

But this matter is placed in so clear and satisfactory a light by the simplest computations, that further argument or illustration is unnecessary.

Assuming a partial renewal of the loan of January 1857, for.....\$2,000,000  
The State for a loan of twenty years receives a premium of fifteen per cent., or.....300,000

Receipts at the Treasury.....\$2,300,000

But at the end of twenty years this debt is to be paid, and the disbursements have been as follows:

Principal.....\$2,000,000  
Interest for twenty years.....2,400,000

Paid out.....\$4,400,000  
Deduct amount received.....2,300,000

Loss to the State.....\$2,100,000

And this result is accomplished without any computation upon interest, which must be paid semi-annually—must be collected a year in advance of its disbursement, and charged with per centage to the Treasurers collecting it, and the expense of its transmission to New York. Such losses may be submitted to by a State which cannot pay its debts, but the people of Ohio would cheerfully submit to an additional tax of three-fourths of a mill, with the knowledge that after January, 1857, even that rate of taxation would steadily and largely diminish.

Such a system is adapted to special, not to general interests, and can only commend itself to the approval of those who think that "a public debt is a public blessing." Public faith should be kept to the people as well as to the creditor. Many of our counties and cities, with other corporations, are deeply involved. The present high credit of the State which has its origin in, and now depends upon the punctual payment of the public debt, is to them of great value. A proposition to postpone the payment would tend to diminish the public confidence in the hitherto untarnished reputation of the State, and thereby produce an injurious effect upon our private as well as public credit. There can be no more desirable object than to see a State free from all foreign liabilities.

OPENING OF THE LA CROSSE AND MILWAUKEE R. R. TO HORICON.—The La Crosse and Milwaukee Railroad was completed to Horicon, Dodge County, 25 miles from this city, last week, and the event was celebrated by a grand Ball and Festival at the Republican House on New Year's Eve. The first train came in from Horicon on that day and several of our Dodge county neighbors participated in the Festival. The entertainment was got up and managed by the employees of the R. R. Company, and was a very successful one. There must have been nearly a thousand persons present during the course of the evening, and music, dancing, feasting, and merry-making were kept up till the Old Year was well out and the New Year well in.

On Monday there is to be another celebration at Horicon, and we are assured by gentlemen interested in the matter that it will be a spirited and handsome affair. They boast of having in Horicon one of the best hotels in the State, of which fact they will satisfy everybody who visits Horicon next Monday.



## CONVENTION OF LOST BAGGAGE AGENTS.

It is obvious from the vast quantity of freight and baggage passing over the railroads of the United States, with the most careful carriage and watchful supervision, more or less of it must be mislaid, stolen, or lost. In consequence of this fact there are few companies in this country or Canada that do not employ a special baggage agent for the purpose of attending to all claims for lost property. The duties of these agents are not unlike those of the special agents in the Post-office. They travel up and down the line of their roads and find out where the lost packages were last observed, trace out the parties upon whom the responsibility of the loss rests, detect thieves where the property has been stolen, and oftentimes show up the unsoundness of many of the claims brought against their employers. Many singular stories are related of persons claiming to have lost baggage, and estimating its value at an almost fabulous figure, which, when opened, proved to be of "no value except to the owner." The care and discretion required to outwit many of the would-be defrauders are often very great; but with the system of checks which has been introduced and almost perfected on all railroads, the chances of success are daily growing smaller and more uncertain. On nearly all railroads, the station masters are obliged to note each piece of baggage or merchandise checked or received, and report the same to the Superintendent. The baggage man on the train is required to note and report each piece of freight or baggage received or delivered by him at every station at which the train stops, and each station master to make a regular report of the unclaimed baggage and freight lying at his depot; and, if not ordered otherwise, to forward the property unclaimed to the general depot for lost baggage. Thus the baggage agent is able to trace the course of every article conveyed by the company. These baggage agents for the past three or four years, have been in the habit of holding a semi-annual convention, the last of which began at the Girard House, in New York, on Thursday last and ended on Saturday afternoon. The principal object of these conventions is to compare memoranda, each agent bringing a list of all unclaimed baggage and freight in the hands of his employers, and also a list of claims and applications for lost baggage, together with descriptions of the property. These conventions have been found of great value, seldom failing to result in finding forty or fifty pieces of valuable property. Packages claimed to have been lost on the New York Central Railroad, for instance are found at Detroit, and goods charged to the negligence of the Erie Railroad, turn up in Chicago. These conventions are productive of another good result; each agent relates his experience of the liabilities to loss, and the benefits of certain systems of checking, the various attempts at fraud, and the manner in which they were frustrated. By this means each agent is put in possession of an amount of experience highly useful to himself and valuable to his employers.

The convention in New York was organized by the appointment of Mr. Van O'Linda, of this city, president, and J. J. Post, of Waverly, N. Y., Secretary. The following railroads were represented in the convention:

New York Central; New York & Erie; Buffalo & Erie; Cleveland, Columbus, Cincinnati & Erie; Cleveland & Toledo; Ohio & Pennsylvania; Michigan Southern & North-

ern Indiana; Great Western (Canada); Michigan Central; Chicago & Rock Island; Illinois Central, Galena & Chicago Union; Burlington & Quincy; Chicago & Milwaukee; Milwaukee & Mississippi; Milwaukee & Waukegan; People's Line Steamers; Lake Michigan & Milwaukee, and LaCrosse Railroad.

The Eastern railroads were not represented, as we understood, because most of them belong to a separate organization. Mr. Hayward, of Boston, who generally represents several Eastern Railroads in the convention, was absent from this on account of sickness. The three days' session resulted in finding 47 pieces of valuable freight and baggage. We learn that the members of the convention not only compare notes every six months, but that during every week a stream of letters flow between them with the most satisfactory results to their employers and the public.

The convention adjourned to meet in Hamilton, Canada West, on the 22d of June next.

## Miscellaneous and Mechanical.

## SUBSTITUTE FOR GUNPOWDER IN MINING.

A writer in the London Mining *Journal* of October 27th, in speaking of the enormous price of gunpowder, caused by the present war, which is felt in the coal districts of this country, to the same extent as in Europe, urges the necessity of procuring a cheaper substitute to take its place. The writer states that Gun-cotton and Fulminating Silver have both been tried, but they have proved to be too uncontrollable forces to allow of general adoption. Electricity has been tried frequently, but not with the success anticipated by those who have heretofore experimented with it. The writer then proceeds to give an account of an accidental occurrence which took place in some chemical experiments which might be turned to use, and substituted for Gunpowder. He continues:

Among philosophical instruments generally which recently, in relation to electricity, has excited the greatest amount of attention is Runcorfe's coil machine. It may not, perhaps, be desirable to associate or invest electricity and galvanism with the romance and mystery which was attributed in monkish times to the first invention of Gunpowder, but it will, nevertheless, be necessary to state that a circumstance has accidentally occurred which possibly may have suggested the idea of this coil machine, which, in all probability, is destined to play its part in the area of scientific chemistry. At the Gutta Percha Works, in the city road, London, about 50 miles in length of copper wire had to be covered with gutta-percha for a sub-marine telegraph. For trying whether this wire was thoroughly insulated and covered, the practice is to lay it in a large coil, put it into water and then pass the electric current through it. On one occasion the man who held one end of the wire stood carelessly again the tank, with his hand over the tube in the water, and the consequence was that on contact he received an electric shock, so violent as to knock him senseless to the ground. Mr. Edwin Clark, the engineer to the company, could scarcely understand the circumstance, and the attention of Prof. Faraday was drawn to the subject. It was found that they had formed thus accidentally, as it were, an enormous Leyden-jar, which usually consists of a glass jar, with tin-foil in the inside as well as the outside; the inside is charged with the elec-

tric element, and the outside not so. The two pieces of metal being in dissimilar conditions, a connection is made between the two, and a restoration of the equilibrium of the electric forces followed, the result of which is the electric spark. Now, in this instance there was presented the copper wire, which, represented the inside of the Leyden jar; the gutta-percha stood for the insulating glass of the jar, and the water formed the outside coating, consequently there was at once constructed a gigantic Leyden jar, produced by galvanic electricity, from which the shock arose, through which the man who supported the end of the wire was knocked prostrate. Upon this idea Runcorfe contrived a coil upon much the same plan as the coils employed as curative agents, but with this difference, that Runcorfe's coils are carefully insulated by gutta-percha, and by glass pillars, so as to prevent escape, and the consequence is that we thus obtain the most beautiful manifestations of machine electricity which possibly can be imagined. Thus it is that galvanic electricity is converted into "Franklin" or lightning electricity, of greater power than by any other means can possibly be produced. It has long been desired to determine, with the greatest possible accuracy the connection which exists between a galvanic current and the ordinary electricity from an electric machine. The differences appear to be very striking. A spark is struck from the Leyden jar, and all is over, but a current from a voltaic battery is a steady flowing current, a uniform disturbance being occasioned through any length of wire, as in the electric telegraph. It has always been thought that these two conditions of electricity were the same, but differing in degree. It is only since we have had the application of electricity to the purposes of conveying intelligence to remote parts that we have been enabled to show their intimate connection, and the great discovery of that intimate connection is due to the somewhat curious accident referred to.

Hitherto the electric current has only been taken advantage of in discharging gunpowder used in the operation of blasting. Valuable as this vehicle is, it must be born in mind that the electric forces are very far greater than those which appertain to explosive gunpowder. The extent to which gunpowder generally has been carried as one of the chief elements in all mining operations as a domestic gunpowder, in opposition with the military character, which always attaches itself to this valuable preparation of the "villainous saltpetre," is nothing in comparison with the illimitable power of electricity. The use of gunpowder, valuable as it is, if prices continue to advance as recently, will be almost prohibited, on account of the charges which will be entailed. We desire a cheaper means to attain the same end. It is, therefore, to electricity that we look with an anxious desire, that through such a power and such a medium to attain the same results, and quite as positively as those which costly gunpowder now supplies. Galvanic and electric forces are far more clearly effective, and far more economical in their results, than those obtained by the adventitious aid of gunpowder. We therefore trust that either through the aid of Runcorfe's coil-machine, applied upon a more extended scale, or to some other electric combination, it will not be long before we shall be enabled to congratulate the mining interest as well as the world at large, upon the successful application of the discoveries and researches of chemistry to the purposes of the



miner, and that the due direction and application of the action of those electric currents to which the existence of so many minerals, in the theory of their essential formation has been dated, may be applied to the realization and development of those costly and now useless ores, which constitute the hidden and treasured resources from which proceed the wealth and riches of the mineral kingdom.

AN ENGINEER.

Staffordshire, Oct. 24, 1855.

## PHYSICAL GEOGRAPHY OF NORTH AMERICA.

(CONCLUDED.)

6. Of the latter ranges, the extreme northern spurs, situated south of the middle and lower Gila, are passed by Cook's route on the trail between the Guadalupe pass and Fort Yuma. Near the latter place, or the junction of the Gila and Colorado, the Coast Range of Sonora and Sinaloa, which forms the western foot of the whole Sierra Madre system—a system which, throughout its whole extensions, is formed by parallel ranges—has its northern termination. Beyond the Gila and Colorado, however, its direction is continued by a chain of mountains which the traveler on his way through the desert, between the latter river and Carizo creek, has at some distance to his right hand. At a very acute angle it converges with the chain which comes from the Peninsula of Lower California, till at last it falls in with it, the San Bernardino peak forming, as I have been assured by persons who have been on the spot, the point of junction. Thus the extreme northwestern spur of the Sierra Madre constitutes what has been called by geologists the San Bernardino range, but has been known to the old Californians under the same name of Sierra Madre, as I have already stated. If, therefore, the Sierra Madre has a northern equivalent, we have to look for it not in the Rocky Mountains, but in the Sierra Nevada system. But the real meaning of all these relations will receive more light from their connexion with the more general structure of the western half of our continent, of which, therefore I shall try to give a few outlines.

This western half is known to be composed of a great longitudinal basin, extending in a direction corresponding to the Pacific coast, from the isthmus of Tehuantepec to the polar region. Through the greater part of its extent it is confined between an eastern and a western marginal chain of mountains. The greater part of its surface has an elevation which gives it the character of a table land, and by its marginal chains it is separated from an eastern and a western lateral terrace.

In California and Oregon, Utah and New Mexico, and in the countries farther to the north, the two marginal chains are clearly and conspicuously marked by nature. The eastern one is formed by the Rocky Mountains, the western one by the Sierra Nevada, Cascade Mountains, and their more northern equivalents. In Mexico, the western chain is constituted by the Sierra Nevada, and is likewise clearly traced by nature; but the eastern one, composed of that line of detached and irregular groups and ridges which crosses the Rio Grande from east to west at the narrows and rapids of San Carlos, is less conspicuous, and may be entirely overlooked by those who are not sufficiently informed about the matter. Nevertheless, as already stated, if the Rocky Mountains have a southern

equivalent, it must be recognised in the mountains of western Texas, Coahuila, Nuevo Leon, San Luis Potosi, and Vera Cruz; and if the Sierra Madre has a northern equivalent, it must be recognised in the Sierra Nevada, the Cascade Mountains, and their more northern continuations: because the first line forms the eastern, the second line the western borders of the great longitudinal basin of our western interior, the whole construction being thus under the rule of a strict physico-geographical analogy.

8. Though in respect to its prevailing elevation, this great basin may be called a plateau or table-land, still it has considerable differences of altitude, and the great slopes—not to speak of similar phenomena of minor importance—which form transitions from the inner and higher to the outer and lower countries: that of the Rio Grande, that of the Colorado and Gila, and that of the Columbia—the former breaking through the western marginal chain.

Between the middle part of the valley of the Rio Grande and the middle part of the valley of the Gila, the country is less elevated than to the north and south of that line. The level of *Lake Guzman*, situated west-south-west of El Paso, is according to Mr. Schugart, even lower than that of the Rio Grande at El Paso. *Lake Santa Maria* must have about the same level. Into this latter lake the *Rio Mimbres*, which comes from the north, is said to empty in time of copious rains; while from the south the *Rio de Santa Maria*, emptying into the same lake, rushes down from the central plains of Chihuahua. A line traced from these two lakes to the *Dry Lagoon* of Cook's route, forms a north-western continuation of this depression of the table-land; and from the latter place the middle part of the Gila may be reached without overcoming any considerable elevation, which however, would be found to exist to the north as well as to the south of that line. The upper Gila runs in a narrow part of the higher country north of it; and though its bottom may be even lower than the level of the open country along the general line of depression, still that does not form an objection against the general construction, as it has neither an opening to the Rio Grande nor is it accessible much higher up than where the road from Tucson first strikes it. If Cook's wagon route, in taking from *Dry Lagoon* a south-western course to the Guadalupe pass, deviates to the south of our line, it is because it follows a series of fine watering and pasture-places, situated just between the mountains of the highest section of country, which contains the origin of the southern affluents of the Gila and of the northern river of Sonora.

9. Thus it would appear that an ocean of a level not much higher than the Rio Grande near El Paso would separate Mexico from the rest of North America.

But an ocean of that level—setting aside the more important changes it would produce in the form of our continent—would cover the Colorado desert; and extending over the deep mountain passes southeast of Los Angeles, would gain the Pacific here, and make an island of Lower California.

It is very possible that such a state of things has really once existed. The nearly horizontal strata of the cretaceous formation of Texas appear to enter in a western direction and unconformable superposition between elevations of other sedimentary rocks and granite, syenitic, porphyritic, trachytic mountains, which must have already existed

when, and must have been above the surface of the ocean in which the cretaceous strata were deposited. Strata of that formation, in unconformable superposition, appear to exist at several places between upheaved and eruptive tracts of country, in northern Chihuahua and Sonora. And if a closer geological investigation should really prove that, a little south of the upper and coinciding with the lower Gila, a branch of the ocean should once have formed a strait across what is now forming our present continent, we might say that some hundred thousand years ago the natural line of a railroad, which in our days should connect the eastern and western sides of that continent, was already traced by nature.

It is an interesting fact that the desert north of the Lower Colorado, which is in the western continuation of that old range of lower country, is, even now, perhaps, the lowest spot of the American continent—as, according to recent measurements, it is in part even somewhat under the level of the ocean. While traveling through that country, I was struck by certain phenomena connected with the periodical filling and drying of what has been called *New River*, and of the several lagoons connected with it. The immense mud deposits of *Little Lagoon*, which I have examined, prove the former existence of long and uninterrupted periods in which the water of the Colorado entered the desert and kept the bed of New River, together with the basins of this lagoon, full; while the existence of mesquit trees, now killed by its water, from which the upper parts of their trunks and branches emerge in a dead state, proves that other uninterrupted periods have passed when the water of the Colorado did not enter the desert. Now, it has been asserted that these fluctuations are the consequence of the more copious or more scanty rains in the countries drained by the Colorado and its tributaries; but the fluctuations appear to have been of such an extent in time and level that the cause assigned to them appears to me to be inadequate to the effect, and I am more inclined to believe that the phenomenon is, at least in part, produced by fluctuations of the ground in consequence of the action of subterranean forces. There is a large solfatara even now in action at the northern side of the Lower Colorado.

10. But to return to my strictly geographical object: it follows from the foregoing statements and remarks that the great longitudinal basin which constitutes the inner part of the western section of our continent, is divided, by a depression of soil which runs from the Middle Rio Grande to the Middle Gila, into a northern and a southern table land, the former being that of New Mexico, Utah, Upper Oregon, and other more northern countries—the latter that of Mexico in its present confines, as they have been fixed by the Gadsden purchase. At the same time it can be seen how great an error it is, affecting the whole physical geography of the continent, to bring the Sierra Madre into connection with the Rocky mountains. It makes the western marginal chain of the southern to be the continuation of the eastern marginal chain of the northern half of the great longitudinal basin, separating analogous and confounding heterogeneous phenomena of orography, of climatology, and of the distribution of vegetable and animal life. Those who have studied the climate, and the flora and fauna of these regions, will find that I am right in my assertions.







## RATES OF EXCHANGE.

| Place.       | Time. | Buy'g | Sell'g    |
|--------------|-------|-------|-----------|
| On New York  | Sight | par   | 1/4 prem. |
| Boston       | Sight | par   | 1/4 prem. |
| Philadelphia | Sight | par   | 1/4 prem. |
| Baltimore    | Sight | par   | 1/4 prem. |
| New Orleans  | Sight | par   | 1/4 prem. |
| England      | Sight | 109   | 109 1/2   |

## SPECIE.

|                         |         |   |         |
|-------------------------|---------|---|---------|
| California clean, 7 oz. | \$17 60 | @ | \$17 65 |
| Spanish Doubloons       | 16 75   | @ | 16 75   |
| Patriot Doubloons       | 15 75   | @ | 15 80   |
| Sovereigns              | 4 86    | @ | 4 88    |
| Guineas                 | 5 00    | @ | 5 00    |
| American, new           | 1 00    | @ | 1 00    |
| American, old           | 1 06    | @ | 1 06    |
| Portuguese              | 1 00    | @ | 1 00    |

## SILVER.

|                   |          |   |          |
|-------------------|----------|---|----------|
| American Dollars  | 1 03 1/2 | @ | 1 04     |
| American Halves   | 1 03 1/2 | @ | 1 04 1/2 |
| Spanish Dollars   | 1 14     | @ | 1 14     |
| Spanish Quarters  | 1 00     | @ | 1 01     |
| Mexican Dollars   | 1 03 1/2 | @ | 1 05 1/2 |
| Five Franc pieces | 97       | @ | 97 1/2   |

\* The standard English value attributed to the Sovereign is \$4.44, in London. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin.

## LONDON QUOTATIONS

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF  
E. F. SATTERTHWAITHE, STOCK BROKER, LON.  
Dec. 21, 1855.

|                                                  |     |   |     |
|--------------------------------------------------|-----|---|-----|
| Belvidere, Del. guar. 1st mort., conv.           | —   | @ | 87  |
| Chicago & Rock Island, Mort., conv. 1858.        | —   | — | —   |
| Cin. Ham & Dayton, 2d mort.                      | —   | — | 80  |
| Erie, 3d Mortgage, 1883.                         | 84  | — | 85  |
| " Sinking Fund.                                  | 81  | — | 82  |
| " conv. 1862.                                    | 75  | — | 77  |
| Grand Trunk (Canada) Debenture.                  | 82  | — | 87  |
| Great Western " conv.                            | 116 | — | 120 |
| " " non-conv.                                    | 104 | — | 107 |
| Illinois Central, 1st Mort., 7's.                | 75  | — | 76  |
| " " with option 70 per cent.                     | —   | — | —   |
| shares till Jan. 1855.                           | 76  | — | 77  |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill. Cent. | —   | — | —   |
| Little Miami 1st Mort. not conv. 6's.            | —   | — | —   |
| Marietta and Cincinnati, 1st Mort.               | —   | — | 80  |
| Michigan Central, conv., 8's, 1860.              | 93  | — | 95  |
| Michigan do do 1869.                             | 94  | — | 96  |
| N.York Central. No Mort. Not conv., 6's          | 79  | — | 81  |
| " conv., 7's.                                    | 92  | — | 94  |
| Ohio and Mississippi, 1st Mort.                  | —   | — | —   |
| Ohio and Pennsylvania, Income 1872.              | 75  | — | 80  |
| Panama. No mort. conv. 1866.                     | 92  | — | 94  |
| Pennsylvania, 1st Mort., conv.                   | 88  | — | 89  |
| Pennsylvania, 2d Mort., conv.                    | 88  | — | 90  |
| Stenbenville and Ind., 2d Mort.                  | —   | — | —   |

The quotations given are sterling quotations. The American value is to be obtained by adding on exchange generally about 10 per cent.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

## BONDS.

For the week ending January 16, 1856.

|                                                                          |             |
|--------------------------------------------------------------------------|-------------|
| \$5,000 Little Miami R. R. Co., 6 per cent.                              | 80          |
| Bonds, due in 1853, at 15 dys.                                           | 80          |
| 1,000 do do do cash.                                                     | 80          |
| 2,500 Marietta and Cincinnati R. R. Co., 7 per cent. Income Bonds.       | 48          |
| 2,000 Hillsboro' & Cincinnati R. R. Co., 7 per cent. 1st Mortgage Bonds. | 55          |
| 9,500 Covington & Lex. R. R. Co., 6 per cent. Income Bonds.              | 45          |
| 4,000 Covington & Lex. R. R. Co., 7 per cent. 2nd Mortgage Bonds.        | 66 1/2      |
| 3,000 Cin. & Chicago R. R. Co. 8 per cent. Real Estate Bonds, 30 days.   | 33 1/2      |
| 725 Little Miami R. R. Co., Dividend Scrip.                              | 86          |
| 224 Indianapolis & Cin. R. R. Co. Dividend Bonds.                        | 68          |
| 10,000 City of Jeffersonville 6 per cent. Bonds.                         | 25          |
| 3,600 Hillsboro' and Cin. R. R. Co. 7 per cent. 1st Mort. Bonds.         | 50 and int. |

## STOCKS.

|                               |        |
|-------------------------------|--------|
| 100 Shares Ohio & Miss. R. R. | 3      |
| 300 " do do                   | 3 1/4  |
| 86 " do do                    | 3 1/2  |
| 28 " do do                    | 4      |
| 21 " Indiana Central R. R.    | 45     |
| 40 " Little Miami             | 78 1/2 |
| 115 " Marietta & Cincinnati   | 17     |
| 200 " Eaton & Hamilton        | 28 1/2 |
| 400 " do do                   | 30     |
| 400 " do do                   | 30 1/2 |
| 50 " Cin. & Chicago           | 10 1/2 |
| 20 " Cin., Hamilton & Dayton  | 62 1/2 |
| 14 " Covington & Lex. 60 dys. | 22 1/2 |
| 10 " Cin. Wil. and Zanesville | 25     |
| 53 " Greenville and Miami     | 6      |

## Monetary and Commercial.

We have to-day to note another week of suspended navigation and general dullness of business. The weather at date of our last issue was the coldest that had been known here for over sixty years. It has since moderated very much, and we are enjoying now fine winter weather as we have it usually in Cincinnati.

We have no changes to note in the state of the Money Market. Owing to the dullness of business there is little demand for money, while the supply is moderate. We quote rates as before, outside of regular houses 15 to 24 per cent. Eastern exchange is in fair supply, proportionate to demand. We quote rates 1/2 to 1/4 premium. New Orleans par to 1/2 per cent.

Prices of hogs and provisions are advancing. Advances from the East note but little change. The news of the last steamer are not considered favorable.

Stocks in our own market are somewhat more active than at last dates, and prices on the better grades have improved.

## NEW YORK STOCK SALES, JAN. 12,

|                                   |         |
|-----------------------------------|---------|
| \$2,000 U. S. G's, '68.           | 116 1/2 |
| 1,000 Tennessee 6's 90            | 90      |
| 1,000 Cal. 7's '70.               | 84 1/2  |
| 4,000 Virginia 6's.               | 93      |
| 3,000 Missouri 6's.               | 83 1/2  |
| 1,000 Erie conv. '71.             | 81      |
| 8,000 do do '62.                  | 82      |
| 2,000 do do '81.                  | 92      |
| 2,000 do do '75.                  | 89      |
| 1,000 Hudson River 2d mort.       | 85      |
| 12,000 Illinois Central.          | 81      |
| 3,000 N. Y. Cent. 6's             | 86 1/2  |
| 16,500 N. Y. Cent. 7's.           | 101     |
| 50 Shares N. Y. Cent. R. R.       | 92 1/2  |
| 100 " Cleveland & Pittsburg       | 65      |
| 550 " Erie Railroad.              | 51 1/2  |
| 200 " Harlem.                     | 17 1/2  |
| 5 " N. Haven and Hartford.        | 128     |
| 100 " Reading.                    | 91 1/2  |
| 100 " Hud. River.                 | 29 1/2  |
| 300 " Mich. So. and No. Ia. R. R. | 87 1/2  |
| 20 " Mich. Cent.                  | 89 1/2  |
| 200 " Panama.                     | 100     |
| 200 " Ills. Central.              | 96 1/2  |
| 200 " Cleve. & Tol. R. R.         | 73      |
| 41 " Chicago & R. I.              | 85 1/2  |

WISCONSIN CENTRAL RAILROAD.—A meeting of the stockholders was held at Elkhorn, Dec. 24th. There was a large representation present, and the report of the Directors showed that the work is progressing rapidly, and that its prospects are very flattering. There have been subscriptions to the capital stock to the amount of something over half a million of dollars, including stock subscribed by the towns of Geneva and Whitewater. The road is all graded to Geneva, and will be completed to that point next month; and between Geneva and Whitewater two-thirds of it is graded and ready for the superstructure; ensuring the road to this place early next fall.

The best point in the report is, that all this work has been paid for entirely by the proceeds of the stock subscriptions, and without the necessity of borrowing; this is a new feature in western railroad building, and one that shows plainly the confidence of the people along the line of the road, in its management and their anxiety for its completion.

The following officers were elected for the ensuing year:

President—Le Grand Rockwell.

Directors—B. W. Raymond and Orin Lunt of Chicago; C. M. Town of Elgin; James Haskins and Godsell of Geneva; L. G. Rockwell of Elkhorn; Eleazer Wakely and Rufus Cheney, Jr. of Whitewater; E. C. Hulbert and J. E. Holmes of Jefferson; A. Rice of Lake Mills; J. S. Perkins of Waterloo; and Lewis of Columbus.—*Whitewater Gazette*.

R. R. DECISION.—APPROPRIATION OF LAND.—*Thomas Huston vs. The Eaton and Hamilton Railroad Company*.—Error to the Common Pleas of Butler County.

Ranney, J., delivered the opinion of the Court. Held—

1. The owner of land regularly appropriated to the use of a railroad company, upon proceed-

ings instituted by the company under law providing therefor, is barred of the common-law remedy to sue for and recover the damages he may have sustained by the entry of the company, and the construction of their road, upon such land.

2. In such case the bar is equally effectual, although the owner may have refused to submit to such proceedings, or to receive the amount awarded him and deposited for his use. Judgment affirmed.

## NEW YORK RAILWAY STATISTICS.

We have received from Albany an abstract of some of the most important railway statistics for the year ending Sept. 30th, as officially returned to the State Railway Commission. We annex the following table, which we have compiled from this document, of the Earnings and Expenses of the New York roads:

|                             | Earnings, year, Sept. 30, '55 | Exp's, year, Sept. 30, '55. |
|-----------------------------|-------------------------------|-----------------------------|
| New York Central            | \$6,563,581                   | \$3,401,455                 |
| " & Erie                    | 5,488,903                     | 2,625,744                   |
| " & New Haven               | 926,425                       | 594,358                     |
| " & Harlem                  | 1,075,577                     | 801,461                     |
| Rome & Watertown            | 404,474                       | 281,890                     |
| Hudson River                | 1,812,087                     | 1,308,124                   |
| Buffalo & N. Y. City        | 285,392                       | 254,496                     |
| State Line                  | 679,730                       | 323,987                     |
| Brooklyn City               | 322,116                       | —                           |
| Eighth Avenue               | 916,587                       | 132,592                     |
| Sixth " "                   | 212,456                       | 165,234                     |
| Third " "                   | 282,475                       | —                           |
| Second " "                  | 174,883                       | —                           |
| Canandaigua & Niagara Fals. | 59,706                        | 70,839                      |
| " & Elmira                  | 174,069                       | 104,583                     |
| Cayuga & Susquehanna        | 135,433                       | 67,784                      |
| Flushing                    | 36,432                        | 39,903                      |
| Long Island                 | 301,703                       | 183,331                     |
| Ogdensburg                  | 529,153                       | 369,708                     |
| Oswego & Syracuse           | 125,510                       | 67,558                      |
| Rensselaer                  | 241,149                       | 130,681                     |
| Syracuse & Binghamton       | 159,489                       | 126,981                     |
| Saratoga & Whitehall        | 71,549                        | 49,222                      |
| Troy & Boston               | 153,331                       | 67,007                      |
| " & Greenbush               | 85,659                        | 11,664                      |
| Buffalo & Corning           | 214,524                       | 125,399                     |
| Black River                 | 26,261                        | 12,401                      |
| Glossburg                   | 28,213                        | 6,302                       |
| Hudson & Boston             | 54,873                        | 34,647                      |
| Potsdam                     | 26,385                        | —                           |

|                       |               |              |
|-----------------------|---------------|--------------|
| Total                 | \$20,843,385  | \$11,310,071 |
| Total length of roads | 3,216 miles.  |              |
| Total construction    | \$125,252,669 |              |
| Number of passengers  | 33,839,164    |              |
| Tons of freight       | 3,417,207     |              |

Our Albany correspondent states that the foregoing figures are not complete owing to the crude returns made by some of the railroad Companies.—*N. Y. Times*.

## THE A. AND N. L. RAILROAD.

The prospect of a completion of this road, through the whole proposed route is now encouraging. If the feeling now manifested on the subject, at different interested points, is not suffered to die a very unnatural death, the road will and must be built. The people of New Lisbon are now fully awake to the importance of the road, and held one or two large and effective meetings, which have resulted in securing enough stock to justify the immediate contracting for its construction.—We are pleased to hear of their activity.—The citizens of this county, those living on the route, are also awaking to the importance of the subject. Those who doubted the building of the road, are beginning to change their opinions, which is a sure indication of success.

We have not received the proceedings of the Ashtabula meeting of the 4th inst., but are informed that the most encouraging indications were manifested of the certainty of the completion of the whole road. It is also reported, that Hon. E. Newton, of this county was elected president of the road for the present year. The selection is a good one.—*Republican Sentinel*.



## Earnings.

**BUSINESS OF THE BALTIMORE & OHIO R. R.**—The regular monthly meeting of the the Board of Directors of the Baltimore and Ohio Railroad, was held yesterday morning. The official report of the business of the road for the month of December, which was read to the Board, shows that the transportation eastwardly into the city of Baltimore of the principal articles, was as follows:

Bark 42 tons; Coal 27,068; Fire Brick 41; Firewood 67; Flour 88,216½ bbls; Grain 2, 131 tons; Granite 307; Iron 413; Iron Ore and Manganese 493; Lard and Butter 1,672; Leather 343; Cotton 155 bales; Wool 107; Flaxseed 10 casks; Soap Stone 147 tons; Lard Oil 42; Lumber 448; Lime 74; Live stock, viz: Hogs, 27,619 head; Sheep, 1,415, head; Horses and mules 91 head; Horned Cattle 913 head; Meal and Shorts 238 tons; Pork and Bacon 8,311 do; Tobacco 53 hhd; Whisky 6,906 bbls; Miscellaneous 554 tons; Hay 28 do; Hemp 132 do; Flour from Washington Branch 1,731 bbls.

The revenue for the month has been as follows:

|                     | Main Stem.   | Wash'n Branch. | Total for both loads. |
|---------------------|--------------|----------------|-----------------------|
| For Passengers..... | \$ 47,499 66 | \$25,615 04    | \$ 73,114 70          |
| For Freight.....    | 360,422 10   | 8,278 81       | 368,700 91            |
|                     | \$407,921 76 | \$33,893 85    | \$441,815 61          |

As compared with the receipts of the corresponding month of 1854, the following exhibit is made:

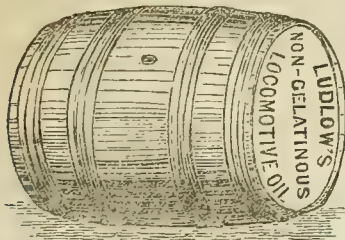
| PASSENGERS.         |              |               |  |
|---------------------|--------------|---------------|--|
|                     | Main Stem.   | Wash. Branch. |  |
| December, 1855..... | \$47,499 66  | \$25,615 16   |  |
| " 1854.....         | 42,635 33    | 22 124 37     |  |
| Increase.....       | \$4,864 33   | \$3,490 69    |  |
| FREIGHT.            |              |               |  |
| December, 1855..... | \$360,422 10 | \$8,278 81    |  |
| " 1854.....         | 221,871 14   | 7,792 24      |  |
| Increase.....       | \$138,550 96 | \$456 57      |  |

This shows a very gratifying result:

|                                                |              |
|------------------------------------------------|--------------|
| Total increase on the Main Stem is.....        | \$143,415 29 |
| On the Washington Branch.....                  | 3,977 26     |
| Total increase.....                            | \$147,395 55 |
| The total revenue for November, 1855, was..... | \$399,119 40 |
| December, " ".....                             | 441,815 61   |
| Increase over last month.....                  | \$42,696 21  |

## W. D. LUDLOW'S

COMPOUND, NON-GELATINOUS LOCOMOTIVE



## LUBRICATING OIL.

THIS Article is a combination of Lubricating Oils, comes cheaper than any other Pure Oil. Warranted not to chill in any Climate, and is purely non-gelatinous.

Office No. 19 Front St. East of Broadway, Cincinnati, Ohio.

## ALBERT M. SMITH'S PATENT PREMIUM RECLINING & SELF-ADJUSTING CAR SEAT



For a Night and Day High or Low-back Seat, combined in one,  
PATENTED AUGUST 21, 1855.

It was awarded two first premiums, a Gold Medal, at the great Fair at the "American Institute," held at N. York and a Diploma at the State Fair, held at Elmira, N. Y., 1855.

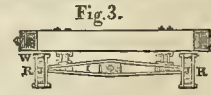
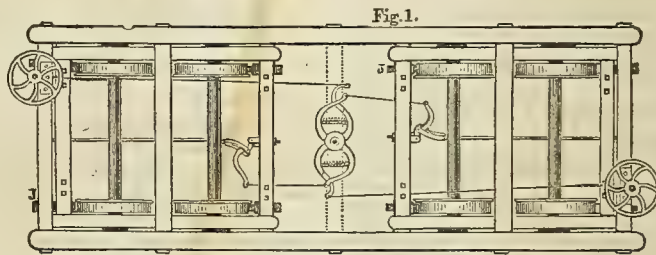
This valuable improvement is adapted and can be applied at a very trifling expense, to the ordinary seat now in use, without impairing its present qualifications as a day seat, and a new seat provided with it, and made in single seats, costs no more than the ordinary seat.

By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects

the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other.

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of **ALBERT M. SMITH, Patentee and Manufacturer,** dec20-1y 13 North St. Paul st., Rochester, N. Y., or **TAULMAN & LOW, 157 Broadway, N. Y.**

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS. Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (1) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

## Cincinnati, Hamilton, & Dayton R. R.

SECRETARY'S OFFICE, CINCINNATI, }  
December 1st, 1855.

At a Meeting of the Board of Directors of this Company, held this day, a dividend of 5 per cent. on Stock, was declared out of the net earnings of the road to October 1st, 1855, payable to the Stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York on and after the 15th inst., fractional parts to be paid in cash, at the rate of eighty cents on the dollar, at the option of the Stockholders.

The Transfer Books will be closed for ten days from this date.

Dec. 6-1m

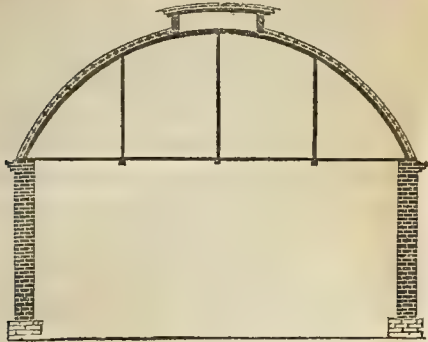
FRANK S. BOND, Secretary.

## IRON BOILER FLUES. PASCAL IRON WORKS.

MORRIS, TASKER & CO.,  
Manufacturers of  
**LAP-WELDED BOILER FLUES,**  
1½ to 7 inches outside diameter, cut to definite lengths, as required.  
**WROUGHT IRON WELDED TUBES,**  
From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.  
Warehouse, 85 South Third St., PHILADELPHIA.



# MOSELEY'S Tubular Wrought Iron ARCH ROOFS.



OFFICE, NO. 57, WEST THIRD ST.  
CINCINNATI, OHIO.

The supporting parts of these roofs are made in the same manner as Moseley's

## TUBULAR BRIDGING.

The tubes are light and of immense strength, capable of bearing twenty times more burden than will ever go upon them. Such roofs can be built in less than half the time, weigh much less and cost less than any plan of Iron Supporting now in use, and no more than good wooden Trusses; besides, this plan of roofing gives a fine architectural appearance, is all iron, and proof against injury to walls, etc., by expansion and contraction. We are prepared to manufacture roofing, after this plan of any size and span, in any and all parts of the country, on the shortest notice.

MOSELEY, WINSTON & MOSELEY.  
THOS. W. H. MOSELEY,  
Supt. and Engineer.  
JOHN BANION & CO  
Special Contractors

January 1st., 1856]



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,  
North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
CINCINNATI.

**BANK NOTE ENGRAVING.**  
DANFORTH, WRIGHT & Co.,  
No. 25 West Third Street, Cincinnati.  
Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

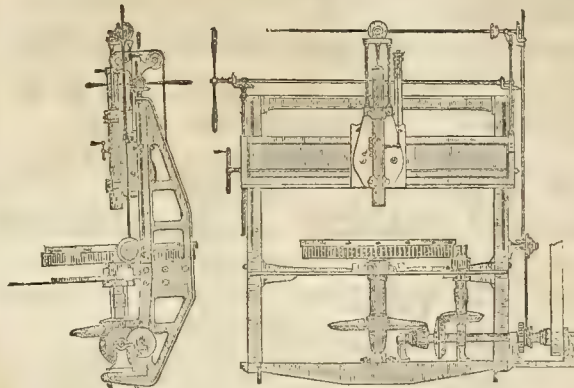
**Rawdon, Wright, Hatch & Edson,**  
BANK NOTE  
ENGRAVERS AND PRINTERS.  
Also, engraved in a style corresponding in excellence  
with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**  
BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, &c., &c.  
Constantly on hand, Bank Note Paper, made to order  
of a superior quality.

The above office is under the supervision of  
GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.

**D. D. MILLER,**  
Manufacturer of  
LOCOMOTIVE, RAILROAD AND HAND  
LANTERNS,  
190 Water Street New York.

# NILES' WORKS. FOUNDERS AND MACHINISTS, EAST FRONT STREET, CINCINNATI,



Manufacturers of  
**TYRE LATHES,**  
Of the most approved plan.  
**HORIZONTAL  
FACE PLATE LATHES,**  
OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.  
**PLANING MACHINES**  
LARGE & SMALL.

**MARINE & STATIONARY ENGINES.**  
**BOILERS OF EVERY DESCRIPTION.**  
**HEAVY FORGINGS,**  
**IRON AND BRASS CASTINGS, &C., &C.**

**BANCROFT & SELLERS,**  
16th Street and Pennsylvania Avenue,  
PHILADELPHIA, PA.,

Manufacture, in addition to their well  
known class of  
**ENGINEERS' & MACHINISTS' TOOLS,**  
SHAFTING, GEARING,  
**PULLEYS, COUPLINGS,**

AND  
**BANCROFT'S PATENT SELF-ADJUSTING  
HANGERS & PEDESTALS;**  
Together with general Millwright Work for Railroad  
and Locomotive Shops, Factories, etc.

— ALSO —  
**CAST IRON TURN-TABLES,**  
Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with  
**PARRY'S PATENT  
Anti-Friction Pivot Box.**

— ALSO —  
**TRANSFER AND DROP TABLES,**  
Suited for Locomotive and Repair Shops, Car Facto-  
ries, etc., etc.

## London Agency for Sale of Bonds &c.

Messrs LANCE & Co., are making more generally  
known in England, the great advantages of American  
securities for investment.

During the present year Messrs Lance and Co. have  
disposed of a large amount of American and Canadian  
Railway Bonds, and are fast extending their connec-  
tions. They will be happy to correspond with parties  
having good American Securities for sale.

Messrs LANCE & Co. have had experience in the pur-  
chase and shipment of Iron, and offer their cooperation  
to those about to negotiate for the disposal of Bonds  
and the purchase of Rails.

P. S. Presidents of Railway Companies are requested  
to favor Messrs L. & Co. with Exhibits or Reports of  
their Companies as published.

10, Regent street, Waterloo Place, London,  
October 1855. nov.15-6m.

**LOCOMOTIVES FOR SALE.**  
OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY,  
Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines,  
28 tons weight; 10 wheels, 6 drivers and truck  
Two of the Engines now ready for delivery, and four  
in the course of three months. Our Coal Burners are  
used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage)  
Pennsylvania Central; Manassas Gap & Orange & Al-  
exandria, Georges Creek Co.'s road, Central Ohio, and  
Ohio & Penna.; and for their durability and economy  
of repairs, and economy of fuel, we refer to the officers  
of the above roads.

Orders for freight or passenger engines deliverable or  
after the first of December, solicited.

Address, **THATCHER PERKINS,**  
President.  
Also, for sale, two Twenty Horse Power Stationary  
Engines. Aug. 9 41

## Railroad Printing.

WE have now attached to this office an ex-  
tensive Composition and Press Room and  
Bindery, under the personal supervision of the  
proprietors of the RECORD. With confidence,  
therefore, we call the attention of RAILROAD OF-  
FICERS and others to our extensive establishment,  
containing every facility for turning out superior  
work in any and every department of the PRINT-  
ING BUSINESS.

We are fully prepared to furnish Railroad and  
other Reports, with or without Maps or other il-  
lustrations, gotten up at short notice and in supe-  
rior style. Also, Blanks of any description, adapt-  
ed to the wants of the various departments of the  
Railroad service, and to the wishes and tastes of  
the parties

Also, Railroad Tickets and Conductors' Checks  
Our patent Card Press, enables us to supply say  
demand at Short Notice and in Unequalled Style

Also, Blank Books, ruled to any pattern, with  
or without Printed Headings, and bound in the  
most substantial manner.

With the numerous facilities for doing the Best  
Work, we feel no hesitancy in promising full sat-  
isfaction to all who may favor us with their or-  
ders.

**T. WRIGHTSON & CO.,**  
Railroad Record Office, 167 Wain 1st Cin



## PRINTING.

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

## RAILROAD IRON.

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired.  
WALKER & BERRY, Quebec & Kingston, Canada.  
BERRY & WALKER, Liverpool, England.  
Kingston, C. W., Sept. 15, 1855.

## PERU & INDIANAPOLIS R. R.

*Peru, Logansport, Wabash, Rochester, and Indianapolis.*

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Frtght. Ag't.  
Indianapolis, October 1, 1855.

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

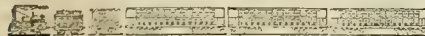
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1855. Sept. 29-15.

## Terre Haute & Richmond R. R.



### Summer Arrangement.

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**  
Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 24 hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.  
MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 23, 1855 S. HUESTIS Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS  
IN OHIO.

Time as short to the Eastern Cities, as well as  
to Chicago and St. Louis, and Fare as  
Low as by any other Routes.



## Great Miami, [C. H. & D.]

MAD RIVER AND LAKE ERIE,

CLEVELAND & TOLEDO,

AND

## EATON & RICHMOND

RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

### FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo, Chicago, and Cleveland—Same train connects at Dayton for Greenville, Union, &c., and at Forest for Lima, Delphos and Fort Wayne. This is the only direct route to the above places.

Passengers for the East take the cars of the Cleveland and Toledo road at Clyde, go into the same depot and make the same connections as by the Columbus route. As the Lake Shore roads depends more upon the trains from the West for their travel, and as this train makes sure connection at Clyde, passengers are less liable to miss the connection at Cleveland than by any other route.

(This train starts by Columbus time which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

### SECOND TRAIN.

Indianapolis Express, at 5 A. M., for Indianapolis, and all points North and West.

(This train also starts by Columbus time.)

### THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest and Bellefontaine for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua, also to Greenville, Union, &c.

### FOURTH TRAIN.

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

### FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

### SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

RETURNING.—Trains leave Dayton as follows: at 5.15 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M., and 6.40 P. M.

TRAINS LEAVE HAMILTON at 5.54, 6.40 and 9.00 A. M., and 2.30, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. ANES, Sup't. C. H. & D. R. R.  
E. F. OSBORN, Sup't. M. R. & L. E. R. R.  
E. B. PHILLIPS, Sup't. C. & T. R. R.  
D. M. MORROW, Sup't. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8 Im

New York, Aug. 16th, 1855.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis: connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50  
" Lafayette.....5 50  
" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

M. L. MITCHELL, Agent.  
The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM H. SMITH, Conductor.  
feb. 8-ly WnRRopeSute M MierODn i,pn

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana, May 11.

## GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION & FORCE PUMP

AND

## Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

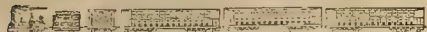
Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**

Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

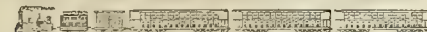
J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, President, Mast. of Transportation, Baltimore.  
JOHN H. DONE, Baltimore.

je. 84

**TO LOUISVILLE****IN SIX HOURS.**

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.

FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.

FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M. and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co.

S. S. POST,

Chief Engineer and Superintendent.

Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,

Ag't Cin. and St. Louis Omnibus Line,

Office No. 2 Burnet House.

aug. 2.

**STEREOTYPE FOUNDRY,**

AND AGENCY OF

**L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES.)  
is prepared to execute in the best manner all kinds of

**STEREOTYPING,**

including Books, Pamphlets, Music, and Jobs of every Description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and will furnish to order PRINTING MATERIALS OF EVERY KIND.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,

188 1-2 Vine Street, Cincinnati, O.

**1856. Winter Arrangement, 1856**

COMMENCING MONDAY, JAN. 7.

**LITTLE MIAMI RAILROAD,**

VIA COLUMBUS.

EXCLUSIVELY AN EASTERN ROUTE.

*The Quickest—Shortest—Most Direct*

Lightning Express through to Columbus, Crestline, and Cleveland, without change of cars. By any other route passengers and baggage change cars.

The only route with three daily trains to Cleveland, Dunkirk, and Buffalo, by the uniform gauge and without ferries.

The only route with reliable connection to Pittsburgh. The only route to Wheeling and Steubenville.

BY 6 O'CLOCK A. M. TRAIN.

Wheeling Passengers Dine at Zanesville. Pittsburgh Passengers Dine at Crestline. Dunkirk and Buffalo Passengers Dine at Cleveland, and dine the following day in New York, Philadelphia, or Washington City. Breakfast at Baltimore.

Time via Little Miami Route from Cincinnati to Columbus in..... 3 3/4 hours

To Cleveland in..... 8 1/2 "

To Dunkirk in..... 14 1/2 "

To Buffalo in..... 16 "

To Albany in..... 26 "

To New York in..... 32 "

To Boston in..... 35 "

To Crestline in..... 5 "

To Pittsburgh in..... 14 "

To Philadelphia in..... 30 1/2 "

To Wheeling in..... 10 "

To Baltimore in..... 26 1/2 "

To Washington in..... 29 "

To Steubenville in..... 12 "

Baggage checked from Cincinnati to Wheeling, Baltimore, Pittsburgh, Cleveland, Dunkirk and Buffalo.

The Little Miami is the eastern Depot.

**FOUR DAILY TRAINS.**

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for all the Eastern cities.

ALSO: Springfield and Delaware; Circleville, Lancaster and Zanesville, Blanchester and Chillicothe.—This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Through to Columbus, Crestline and Cleveland without change of cars.

SECOND TRAIN.—Express Mail, leaves Cincinnati at 10 o'clock A. M., for all the Eastern cities.—This train stops at all points between Cincinnati and Columbus.

THIRD TRAIN.—Accommodation, leaves Cincinnati at 3.30 o'clock P. M., for Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Springfield.

FOURTH TRAIN.—Cleveland, and Pittsburgh Night Express, leaves Cincinnati at 6 P. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office south-east corner of Broadway and Front streets, opposite Spencer House, or at the Eastern (Little Miami) Depot, East Front street.

Office hours from 4 1/2 A. M. until 9 1/2 P. M.

P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

janis.

H. B. RUGGLES, Conductor.

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

DWELLINGS, STORES, WAREHOUSES,

and their contents,

STEAMBOATS, BARGES,

and their Cargos,

Manufacturing Establishments,

Railroad Depots and Station Houses,

at current rates.

L. A. OSTROM,

ug. 16.

No. 6 West Third Street, Cincinnati.

**Covington and Lexington Railroad.**

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terre Haute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

The Express Train leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at Lexington at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryantsville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

The Accommodation Train leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.20 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

Freight Trains will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

**RATES OF FARE.**

Covington to Louisville.....\$4 00

Covington to Lexington..... 3 00

Covington to Paris..... 2 40

Covington to Cynthia..... 2 00

**FOR THROUGH TICKETS**

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at Old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent.

The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw Madison and Scott, Covington.

CLAYTON &amp; GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road.

nov. 15\*

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

VIA LAWRENCEBURG,

IN connection with the **OHIO and Mississippi Railroad.** Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.  
Office, 31 Main Street, west side, 5 doors north of Madison House.

SIDNEY RICE, Agent.

Cincinnati, Nov. 1, 1855.

**W. G. ATKINSON,**

Civil Engineer, Surveyor &amp; Draftsman.

CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated  
Maps and Reports furnished; Researches made for

Coal, Iron, Copper, Lead, or other Minerals,  
Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared.

**RAILROAD IRON.****LOCOMOTIVES.**

4,000 Tons rails, 58 to 61 lbs. per yard. 200 tons rails 49 lbs. per yard. 1,000 tons rails 55 lbs. per yard. Also: several Locomotives of best manufacture, from 20 to 26 tons weight, adapted to roads of four feet eight and one half inches gauge, for sale by

H. H. GOODMAN &amp; CO.,

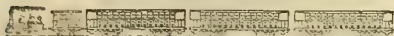
Jan 10, '56-2m.]

no. 7 Wall st., N. Y.



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

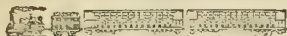
Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNIS &amp; PECK,

Louisville, Ky.

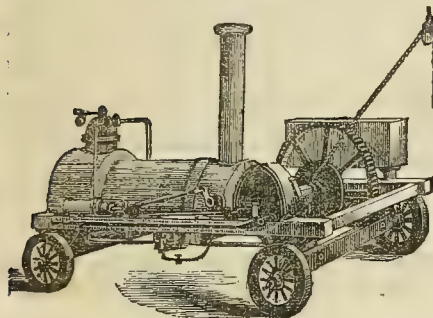
**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

RICHARD NORRIS &amp; SON.

**A. L. ARCHAMBAULT'S****PORTABLE STEAM****HOISTING & PUMPING ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

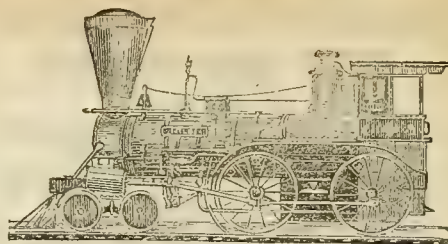
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad Companies."

COMMITTEE—Messrs. DURAND, FULTON and TILTON.

Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.

Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in

**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs onr TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

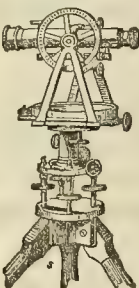
The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.****T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames'

Tire and Crank Axles, Chairs and Spikes. Locomotive

Head Lights, (of several makers) Car,

Conductor's Signal, Switch, Stoker and other

Lanterns. Drawbridge and Cross Road

Signal Lights; Gum Packing and

Hose, assorted Car Trimmings,

Enamelled head and seat

Linings, Plated and

White Metal Letters.

—ALSO—

Machinists' Tools,

particularly adapted to

Railroad Work, Mill Work,

Shafting and Shop outfits, Punch-

ing and Shearing Machines, for Boiler

Work; Planers, Lathes, Drills, Portable

Forges, etc., etc. Oak-Tanned Belting, of superior

quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. &amp; E. Wason, Springfield, Massachusetts.

**Railroad Car Findings****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

Wheels &amp; Axles, Jaws, Boxes, and Casting Fit

**Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,** From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS** Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight, Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Couch Japan and Glue: Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing, American, Russia, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

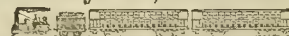
Late Davenport &amp; Bridges, Car Manufacturers.

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

foc6

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyes, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

Dayton, Jan. 24th. 1853.

Jan.25+

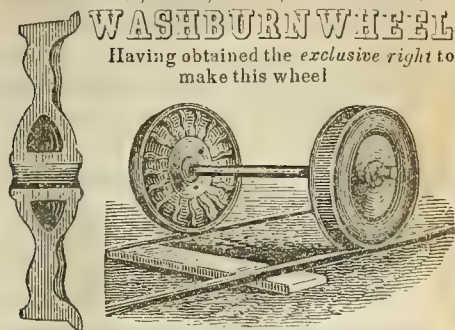


## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

### WASHBURN WHEEL

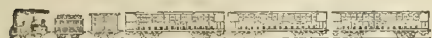
Having obtained the exclusive right to make this wheel



In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address KECK & HUBBARD,  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.  
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## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

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au41f. Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... C. M. RUSSELL

### DAVENPORT, RUSSEL & CO.,

Railway Car Manufacturers,  
MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care. We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16/7 JOSEPH DAVENPORT.

### S. C. THOMSON & CO.,

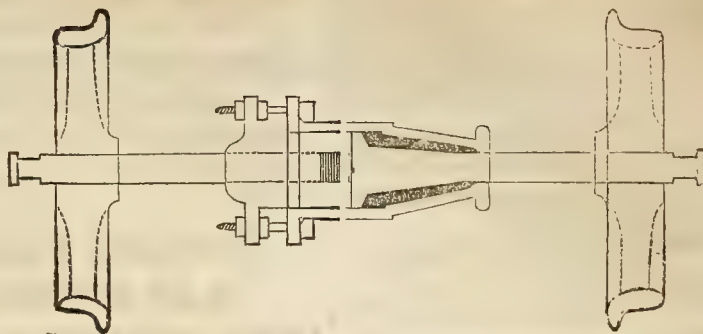
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n.12| NEWARK, N J.

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff of rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

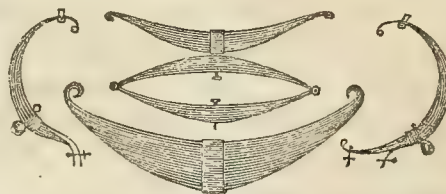
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Christiana, Pa.

Or, to CHRISTIAN UMBLE,  
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3y10+

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Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

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All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

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U. WELLS, R. R. Car Manuf. Petersburg, Va.

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May 19.

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THOMAS DOUGHERTY, Master Mach. do.

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### REFERENCES.

Richard Norris & Son, Locomotive Builders, Philad'a.

Wm. D. Lewis, Esq. Pres't Catawissa R. R. Co. "

Charles H. Fisher, Esq. " "

Jao. Caldwell, Esq., Pres't S.C.R.R. Co. Charleston, S.C.

Pinekey Huger, Esq., Pres't N.E.R.R. Co.

Oct. 13-14.



## Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to  
JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation  
WILLIAM B. FOSTER, Jr.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPT., PENN'A R. R.,  
ALTOONA, Blain Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,  
H. J. LOMBAERT, Superintendent.  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.  
EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,  
Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

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## Prosser's Patent.

## LAP-WELDED

## IRON BOILER TUBES,

Every article necessary to

### DRILL THE TUBE-PLATES

and to Set the tubes in the best manner. Tube Cleaners, Steel-Wire and Whalebone Brushes. Tubes for Artesian wells, Pump Shafts, Line Shafting, conveying Steam or Water, &c., &c., screwed together, flush on both sides, or with couplings either outside or inside; also expanded into Flanges. Free Joint Tubes for Core Bars, Railings, &c. Pull Lever Wrenches and Wrought Iron Blacksmiths' Taperes.

Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Ties, Plater's Rollers, Rifle and Gun Barrels, Cannon, &c.

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## MACHINERY DEPOT

AND

## Leather Banding Manufactory,

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KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest Establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

### Oak-tanned Leather Belting,

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. ACKERMAN, PROPRIETOR

Aug. 9 1y

## SODA WATER APPARATUS!

### THE ONLY PATENT CAST IRON

## SODA WATER APPARATUS

IN THE UNITED STATES;

(Patented June 12, 1855.)

### FOR MANUFACTURING SODA WATER!

Also, every description of Apparatus, either for Drawing or Bottling of Soda Water. Also, the new SELF-TIGHTENING FAUCET, for water or any kind of Liquids. (Patent applied for 1855.) can be made of Brass, Lead, or any other metal, and Silver-Plated. It cannot be left open by carelessness or by children, nor be easily broken. It will out wear any other Faucet now in use.

Also the new LUBRICATING APPARATUS, (Patent applied for 1855.) for oiling Valves and Cylinders and Throttle Valves of Steam Engines, Locomotives, Steam Pumps, &c. This Apparatus is Transparent, Self-Feeding, and not easily got out of order. It has a Glass Cylinder on the inside of a brass case, which holds the oil, and can be seen at any time when the oil is out. It will do either for Steam Vacuum or Journals. It is the best thing that could be made for Locomotives.

STEAM GAUGES on a new principle, manufactured and sold by

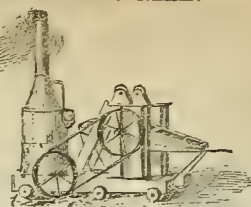
WILLIAM GEE,

Dec. 5, 1855—1y

68, Fulton Street, New York.

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



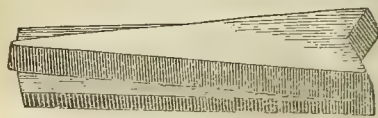
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

## Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

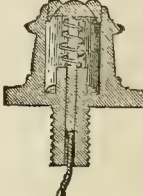
Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



OIL CUPS



For Locomotive and Stationary Engines. For sale by  
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In Sheet or in Pocket Case;

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# Railroad Record.

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W. WRIGHTSON, { Associate Editors.  
T. WRIGHTSON, {

CINCINNATI:  
THURSDAY MORNING, JANUARY 24, 1856.

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### CONKLING'S IMPROVED SCIENTIFIC BRICK.—

Our readers will find in its proper column the advertisement for the sale of rights to manufacture this greatly improved brick. The points claimed for it are, Economy of fuel and time of burning, Economy of room in walls, Greatest Strength and Durability of structure, combined with Superior Excellence of finish.

### MEMORIALS FOR A PACIFIC RAILROAD.

We are glad to say that the interest taken in the circulation of these memorials has exceeded our utmost anticipations. A gentleman at the head of one of our most prominent and important railroads in the North-east, writes us: "I will try to get some signatures for the Pacific Railroad Memorial. Urge it on by all means. The Pacific Railroad must be built." We shall soon endeavor to call them in, and ascertain how many signatures we have obtained.

VOL. 3.—No. 48.

### METEOROLOGY—CLIMATE, AND ITS EFFECTS ON RAILROADS.

We are yet without sufficient data to determine absolutely the effects of severe cold and snow on railroads. It seems, however, beyond doubt that the effects most seriously increase the *cost of operating railroads*, in a high Northern latitude. In the winter of 1854-5, several of the Illinois railroads were stopped for weeks, and the cost of removing the snows, and re-instating the roads, was very considerable. The same thing has taken place this winter on the Canada roads. Now, this occurred in places where there were no mountains—in a country where it was generally plain, and therefore easy to operate a railroad in. During the winter of 1851-2, the Pennsylvania Railroad was arrested in its business for two or three days at a time, and even between Philadelphia and Harrisburg, one of the oldest travelled routes of the United States, the trains were stopped for three or four days at a time. The snow was piled up in places three feet deep, and there were many days in which it was impossible to travel. If such things take place in the latitude of 40°, in a comparatively low country, what is to be expected in elevated mountain chains, in the latitude of 43°, 46° or 48°? It seems evident to us, that if it be possible at all to operate a road through the Rocky Mountains, in those latitudes it is certainly *not* possible to do it, without such an expense as would be a serious if not fatal drawback on the profits of any road whatever. Leaving out of view, however, any actual obstructions, the actual cost and loss of operating a road in severe cold weather is much greater than it is in the warm season. The influence of severe cold on iron is to increase its wear and tear; the capacity of men for labor and business is much diminished; the expense of supplies is greater. In one word, a severely cold climate is a positive drawback on the operations of any railroad. The difference of operating a railroad in the climates of 30° and 50° is very great. We mention this subject here because we have had severely cold weather, and its phenomena are manifested on all sides of us. In the Northern States, the trains were stopped by snows, more or less, on all the roads. We can only guess at what sort of cold they have had on the North Fork of the Platte, or the South-west Pass, or in Oregon City; but anywhere this side the Rocky Mountains it has been cold enough. We cite the following degrees of the thermometer at a few places in the West:

|                                     |         |
|-------------------------------------|---------|
| Cincinnati, January 9, 1855.        | 14 deg. |
| Vicinity of Cincinnati.             | 22 ..   |
| Jefferson county, Ky.               | 22 ..   |
| Springfield, O.                     | 24 ..   |
| Burlington, Iowa.                   | 24 ..   |
| St. Paul, Minn., December 24, 1855. | 26 ..   |

These are sufficient examples to show the extreme cold of the West—a cold unprecedented in the last half century.

We add to this the average of the minimum of the thermometers for several years, at places North of 40 degrees:

|                                          |                     |
|------------------------------------------|---------------------|
| Fort Brady, Lake Superior.               | 33 deg. below zero. |
| Fort Snelling, North Fork of St. Peters. | 29 ..               |
| Fort Howard, Green Bay.                  | 28 ..               |
| Fort Crawford, Prairie du Chien.         | 28 ..               |
| Council Bluffs, Iowa.                    | 21 ..               |

At the same time the minimum of several places, South of 35 degrees, was as follows:

|                   |                    |
|-------------------|--------------------|
| Natchitoches, La. | 7 deg. above zero. |
| Charleston, S. C. | 19 ..              |
| Pensacola, Fla.   | 11 ..              |

There is an average difference in the climates in the coldest season of about *forty* degrees.

The latitudes of the first places are from 42° to 46°; and of the last, from 30° to 32°. It is evident, therefore, that a railroad running in the latitude of the first range must encounter all the severities of cold, ice and snow; while in the gorges and sides of mountains the difficulties will doubtless be increased. On the other hand, it is equally obvious that a road in the latitude of the last places will have very little, if any difficulty of that sort. In estimating what may be the elements of success or failure in a railroad running across the American Continent, the question of latitude, or climate, cannot be left out of view with impunity. If the projectors of such a highway are willing to ignore it, and if they should succeed in making a perfect road, the question behind remains—how much more will it cost to *operate* this road, in a cold climate, rather than a mild one? That is a question of greater moment to the capitalists who shall undertake it than even the cost of construction. Try if the expenses of working a railroad be greatly increased beyond the ordinary average, the road cannot be profitable, no matter what measure of business it may have.

The problem of determining *how much ice and snow cost a railroad in running* is yet to be solved; but as a slight contribution to its solution, we extract from the Annual Report of the New York and Erie R. R. the following averages in some of the items of expense for the whole year, 1852-3, and for the months of December and January:

|                                  | Average of the year. | Average of Dec. & Jan. |
|----------------------------------|----------------------|------------------------|
| Porters & Switchmen.             | \$4,060              | \$4,400                |
| Wood and Water Station.          | 670                  | 1,450                  |
| Freight, Conductors & Brake-men. | 10,000               | 12,500                 |
| Contingencies.                   | 4,100                | 5,900                  |
| Repairs of Engines & Tenders.    | 19,500               | 31,000                 |
| Averages.                        | \$38,330             | \$55,250               |

The whole average expenses per month were \$200,000. The average expenses of December and January were \$234,000. The average receipts of the *same year* were \$360,000 per month; while the average receipts of December and January were \$300,000 per month. Thus it appears that the receipts were \$60,000 per month *less*; and the expenses \$34,000 per month *more*. Reducing the expenses to correspond with the same amount



of business, the expenses should have been about \$170,000, instead of \$234,000; showing that in December and January the increased expense of running the road, to do the same business, was near 40 per cent. ! Allowing something for the month of February, and averaging the increased expense over the whole year, we find that the increased expense caused by ice and snow in three months, over what would have been if there had been no such obstructions, is near 10 per cent. on the whole expense.

It is true, the data we have given, derived from only one road, are by no means conclusive. Yet, we feel entirely safe in saying that the cold winters, North of the fortieth degree of latitude, will cause an increased expense in running railroads of from 5 to 10 per cent per annum. In unhealthy Southern climes this would probably be compensated by diminished business in summer; but, in healthy temperate regions—South of 40°—the absence of severe winters will prove an immense gain in the running of railroads.

We shall hereafter return to this subject, with a view to give some solution to the problem presented.

#### NEW SCHEME FOR A PACIFIC RAILROAD.

A correspondent of the *Washington Intelligencer* in an able communication to that paper, under date of January 16, on the subject of a Pacific Railroad, lays down the basis of a new scheme for securing its construction. The writer, after giving in a forcible manner the general and national reasons which operate to render this road a national necessity which cannot be delayed, affirms that such are the convictions of all classes of the community that, unless this object is sooner attained, it will undoubtedly be the turning point in the next Presidential Campaign. The general features of his scheme we shall give in his own words :

A bill for the incorporation of the Atlantic and Pacific National Union Railroad Company by Congress has been draughted, and is now ready for presentation in the United States Senate, by which to unite the whole country in its support, and by which to put an end to all further Congressional inaction, sectional strife, or party dictation; and if it should encounter opposition from the veto power of the President, it will become a law by the Constitutional action of Congress, under a two-thirds vote.

This bill provides for two roads—one upon the Mormon route indicated by the recent Government surveys, extending between Chicago and St. Louis, upon the nearest air line, via Council Bluffs and Great Salt Lake, to Benicia and San Francisco, running near the 41st parallel line of north latitude, within a temperate and healthy clime, best adapted for new States, and best designed by nature for the support of a large and industrious population—this is called the central route; the other extending from San Francisco and San Diego, in a south-east direction, via Gila river and the Rio Grande, and connecting at El Paso with the Texas State road, in a route

recently surveyed and recommended by Col. Gray; thence in a distance of some eight hundred miles to the Gulf of Mexico, having connecting branches with other Southern State roads extending to Memphis and New Orleans.

The bill contemplates a union of these two routes by one company, under a comprehensive and liberal charter from Congress, by which to insure the simultaneous progress and completion of both, and the united action and aid of the whole country in carrying them through within ten years, regardless of sectional interest and every obstacles, without making it a direct Government work.

The capital of this company will be established by the charter at \$150,000,000, and is to continue for fifty years; \$120,000,000 of which is to be applied to the construction of the central route, and \$30,000,000 to aid in extending the Texas road within the Government territory from El Paso westward to San Francisco and San Diego, that road having already a liberal grant of lands from the State, estimated to be worth \$44,000,000, amply sufficient to construct the first eight hundred miles.

Under the practical operations of this bill, which entirely eclipses every other ever presented in Congress, the entire cost of the work will gradually be converted into an *unrivalled investment*, with both the interest and principal guaranteed at maturity by the united wealth of the Union, without making it a direct Government work, equal to a six per cent. Government stock; and all the surplus above par paid for stock of the company is to be paid into the National Treasury, as a bonus and security to the Government for guarantying the interest upon the company's stock.

This guaranty by Government of the interest upon the company's stock and of the redemption of the principal at maturity, under a mortgage of the entire work, will secure the payment and subscriptions under ten annual divisions and instalments of the entire capital, and insure the completion of the work under individual wealth, State credit, and corporate enterprise; when by no other means the capital can ever be obtained, and without the temporary aid of the credit of our National Government, under a liberal charter from Congress, the work can never be accomplished.

We do not know who are the authors of this proposition, nor the parties who are interested in carrying it out. But to us it has several objectionable features.

FIRST. It proposes to saddle the general Government of the United States with a debt of \$150,000,000, for which, without any direct interest in the work, the Government would be responsible. It would be a direct tax upon the resources of the nation, and no financiering could render this otherwise. The interest of this \$150,000,000 at 6 per cent. would be \$9,000,000 annually, to be paid in gold to the holders of the script, and \$150,000,000 beyond that at maturity. A tax of this enormous sum is both unnecessary and unwise. It is unnecessary, because the work can be accomplished without it. A portion of the now unoccupied public domain, which at present is worthless because unoccupied, and which will forever be worthless unless a railroad development should encourage emi-

acknowledges that the land grants of Texas gratiation there, we say a portion of this worthless and unprofitable public domain, bestowed under due restrictions and with liberal encouragements to the enterprise of capitalists, would do all that this enormous scheme proposes to do with the aid of \$150,000,000 of public credit.

It cannot be possible that with the prestige of the Illinois Central Railroad before them, the general government will be willing to saddle on the people this fearful incubus of an enormous public debt. The measure is as unwise as it is unnecessary. Would any man in sane mind give lavishly of his wealth for that which he can purchase without spending anything of present value to him? And will it be wise for our people to pay from their hard earnings, a tax of \$9,000,000 for interest, annually, when they can obtain the practical benefits of this scheme without expending one cent? But, it is answered that the donation of lands would strip the government of its domain. The donation of money would not, we suppose, strip it of its present means and approximate it to the debt ridden governments of Europe—a thing of far greater consequence than the loss of a few million acres of present worthless lands; especially when that loss would render valuable at least as many millions other still belonging to the government. For we take it that government would reserve to itself at least alternate sections on the line of the grants.

SECOND.—This project is sectional. It would develop the central and the southern routes only, and ignore entirely the existence of the great north which would still have to pay its proportion of the cost of this tremendous enterprise. No. Let the government know neither North, nor Center, nor South, but if it will give its aid to develop either, let it give with an equal hand to each and draw no dividing line as bones of contention with which to disturb the peace and good feelings of our people. Let it offer to the enterprise of the north an equal advantage that it gives to the center and develop its north as well as its center. But this is not all. The prosperous settlement of a frontier is the best and cheapest means of defence against a foreign enemy. And if any portions of our unoccupied domain should be developed in preference to others they should be our frontiers. Line them with sturdy pioneers and you will build on them the strongest and most lasting fortification that you can erect. Defences, which, unlike mouldering walls, grow stronger with time and cost nothing for repairs.

We say, then, the provisions of this bill are sectional, and, as such, are unworthy the support of general government.

Again, the bill itself, is a complete acknowledgment of the wisdom and efficacy of a policy directly the opposite of its own. It



can build the first eight hundred miles, and that the Texas route would cost but little more than half as much as that on which it is proposed to spend the great bulk of the enormous sum proposed to be raised. It proposes to give \$30,000,000 to the Texas route, and \$120,000,000 to the Central route. If a road to the Pacific is all that is aimed at, that can be obtained for one-fifth the aggregate of the proposed outlay. If development of the center is aimed at, it is sectional and unjust.

Lastly—The bill proposes to constitute an enormous monopoly. To place under the control of a private company \$150,000,000 of public credit and the two only routes to the Pacific. The world has never seen a monopoly of the gigantic proportions here proposed. If two routes to the Pacific are necessary, they are so to prevent one from abusing its high and important privilege—not to constitute a monopoly of capital and influence so enormous as to overshadow every other interest in the land.

In conclusion we would say, that while we wish heartily for a road to the Pacific, while we believe we realize, in some degree at least, the imperative necessities which call for its construction, and the rich advantages to be reaped from it, we do not wish to see our country crippled, its energies and resources alike cramped with public debt, and itself ridden by a tremendous monied monopoly.

In our next issue we shall give a map of a reconnaissance of a northern route to the Pacific, having already given that of a southern one, with a very interesting article from a correspondent in Oregon. This distant territory calls loudly for the sympathy, aid, and support of the Government, and will not be satisfied unless her claims are placed upon an equal basis with others.

#### RAILROAD MEETING AT ASHLAND.

A meeting of the citizens of Ashland and vicinity of Wabash county, favorable to the completion of the Cincinnati and Chicago Railroad between Wabash and Marion, was held on the 5th instant, and was addressed by Wm. Garrison, John L. Stone, J. L. Sailors, C. H. Lewis, and Hiram Kindall, all urging the propriety and necessity of completing the road, and in favor of subscribing additional stock for that purpose. Resolutions discouraging suits against the company to recouse back the stock subscribed, and pledging the influence of the citizens for the early completion of the work and for the election of trustees to take charge of the stock that may be subscribed, were passed by unanimous vote; and Messrs. S. L. Stone, James Jackson, and J. L. Sailors were elected such said trustees.

A plan for subscribing stock was reported and adopted, to make half payable when the road is ready for the iron, and the balance when it is completed.

Messrs. H. McPherson, Wm. Garrison, and C. H. Lewis were then appointed a committee to solicit stock. We are glad that a new effort is being made on this line of internal improvement.—*Marion Journal*.

#### CAIRO & FULTON R. R.

We have received the report and map of this road; which seems now likely to progress satisfactorily. The President, Mr. Beebe, is indefatigable, in his efforts, and deserves high credit, for the intelligent and successful conduct of the enterprise, in its present incipient state. Our readers are aware that the United States Government has made a most valuable grant of lands to the Cairo & Fulton Company. With this aid the scheme will no doubt prove successful.

Looking to the situation and future operations of this road, we must regard it as one of the most important in the Union. Especially do we regard it as important to the State of Ohio and the city of Cincinnati, in which we happen to be placed. The Cairo and Fulton Railroad is indeed far from us, but it is a *part of the best and most direct line* from Ohio to the whole South—West of the Mississippi. Let any one lay a line, on Cleveland and Cincinnati; and he will find it will include very nearly, the following places:

Continuing along the southern shore of Lake Erie, from Buffalo to Cleveland, it will pass through Columbus; Cincinnati; Cairo, Ill; Little Rock, Ark; Fulton, Ark., and the Texas Pacific R. R., near its Eastern terminus. Indeed, Fulton in Ark. and Shreveport, La., are regarded as two *termini* of the great Texas Western Railroad. Thus the Cairo & Fulton is the direct and short line, from Cleveland, Columbus and Cincinnati, to the center of Arkansas, Texas and the Indian Territory. These regions already furnish an immense trade, especially to New York, which reaches them by the coast to New Orleans, and thence by the Mississippi and Red Rivers. Their proper place of trade is Cincinnati, and if the chains of railroad, now in course of construction and projected shall be finished, *that fact* will be at once evident.

There is another fact, which may startle our Lake shore friends; but it is not the less true, that the route of the Cairo and Fulton, will be the *shortest and far the best which can possibly be made from Cleveland on Lake Erie, to the navigable waters of the Pacific*.

This will appear at once, by just looking at the following distances:

|                                                  | Miles. |
|--------------------------------------------------|--------|
| Cleveland to Cincinnati.....                     | 234    |
| Cincinnati to Cairo, via Vincennes.....          | 330    |
| Cairo to Fulton, via. of Little Rock.....        | 370    |
| Fulton to Steam navigation on the Colorado, via. |        |
| Texas Western R. R.....                          | 1,350  |

Cleveland to the navigable waters of the Pacific.....2,354

Add 260 miles, and Cleveland to San Diego.....2,614

There is no possible way, by which a rail road route can be made from Cleveland to the navigable waters of the Pacific, as short, and good as this.

|                                                        | Miles. |
|--------------------------------------------------------|--------|
| From Cleveland to steam navigation on the Pacific..... | 2,354  |
| From Chicago, via. Cairo.....                          | 2,115  |
| From Cincinnati.....                                   | 2,000  |
| From Cairo.....                                        | 1,750  |

It is thus very apparent, that the Cairo and Fulton Railroad is of great importance to the North-western States. Should this road be made, and the Texas Western, also; a much shorter passage can be made from Ohio to the Pacific on this route, than by any other. We are glad that both these roads have large grants of land, the one from government, and the other from Texas. We hope and trust that they may be successfully constructed, and thus open up the vast and almost unexplored regions of the Southwest.

#### COAL ON THE PACIFIC.

We learn from the *San Diego Herald* that coal has been discovered near that city on the Pacific coast. The coal is said to be an excellent quality of anthracite. A responsible company has been formed for working the mines, and no time will be lost in making available this valuable discovery. Compared with the fact of the existence of workable beds of coal in this region, there is hardly another in all California which can be considered of paramount importance. Coal and iron will build up an immense manufacturing interest, will gather a dense population of sturdy and intelligent mechanics, the bone and sinew of a country's strength, where gold alone would only enervate and enfeeble.

But there is another point of interest in this discovery occurring at this present juncture, which renders it remarkably opportune. San Diego is designed to be the Western terminus of the Southern Pacific Railroad. Its value, therefore, to the operators of this road, when built, is incalculable. And when the magnitude of the interests involved in this great highway are considered, embracing, as they do, the whole field of commercial polity and interest, we may well assert that the discovery of coal near the western terminus of this road, on the Pacific, is one which has a direct interest for every citizen of our country, and which is ominous of good for this national project.

#### FRAMING OF CARS--PREVENTION OF SMASHING IN CASE OF COLLISION.

It is always an important point to prepare for accidents when least expected; and especially of late, when accidents have multiplied in number and fatality beyond any precedent in railroading, is it appropriate to consider the means of reducing the fatality of casualties when they do occur? One of the great causes of the extreme fatality in cases of accidents to a passenger train, is the splintering of the cars, and thus injuring many who would have escaped had the cars been made of stronger material, or framed differently. This point is one of great importance, and should receive careful attention. We shall endeavor briefly to elucidate our assertion:

The foundation frame of a car is usually a parallelogram of strong timber, with short



beams running across the car. The object of these is to sustain the weight of the passengers. Now it is easy to see, that in case of collision, either with another train or a fixed object, the only resistance to crushing will be offered by the outside frame timbers and the floor boards of the car. This resistance can be but trifling compared with the enormous momentum to be overcome. Now, if the floor timbers of the car, instead of running crosswise, had run longitudinally of the car, the resisting power would have been increased four-fold. Greater strength would be obtained, and less liability to splinter by the force of concussion would be secured. The framing of a car is as easily done in this way as in the other, and the cost and weight no greater, while the advantages secured are of such character as to warrant even largely increased outlay, were such outlay necessary. We trust this subject will receive from car builders and car buyers the attention that its importance deserves.

#### COPPER IN THE GADSDEN PURCHASE.

While our people are tolerable well informed of the riches of the Lake Superior and Tennessee mines in this valuable mineral, there are few among us who know anything of the vast mineral wealth of the strip of territory known as the Gadsden Purchase. We often hear it described as a "barren howling wilderness," entirely destitute of natural resources, and worthless in point of agricultural value. And what we ask was California a few years ago? Was not that now flourishing and wealthy State then supposed to be just what these sweeping condemnors of the Gadsden purchase declare it is now? What American enterprise and intelligence has done for California, we dare predict it will yet do for this "barren and howling wilderness." Its natural resources will be developed, and its mines of hidden wealth will yet be made productive.

We learn from a private letter from a gentleman who has recently traversed this whole region, that a responsible company under the name of the "Dunbar Company" have taken possession of the "Ajo" mine probably the richest copper mine in the whole purchase, and are erecting works and making improvements preparatory to active mining operations.

We have been favored with an examination of a specimen of the ore now in the possession of Major Heintzelman of Newport. It is a rich ore and gives the following percentage as per analysis

|             |        |
|-------------|--------|
| Copper..... | 71.80  |
| Iron.....   | 7.84   |
| Oxygen..... | 12.34  |
| Silica      | } 8.02 |
| Alumina     |        |
|             | 100.00 |

The copper will be transported in wagons from the mine to the river Gila or the Colorado about 90 miles over a country which is of itself a natural road, from thence in vessels to its destination in California, China, or wherever

else it may be found profitable to transport it.

Considerable improvements have been made along the Gila and in this region since the date of the exploration in 1854. Enterprise and industry are sure to flow where there is a field open to them.

#### CONTRADICTION.

We insert with pleasure the following contradiction of the report of an accident on the Little Miami Railroad. And in this connection we would say that there are no roads in our country managed with greater regard to the comfort and safety of passengers than those running from Cincinnati:

GENERAL TICKET AGENT'S DEPT.  
L. M. AND COL. AND XENIA R. R.,  
CINCINNATI, Jan. 19, 1856.

A report being in circulation of a serious accident happening on this road, I take great pleasure in stating that during the extreme cold weather of the winter, and up to this time, this road has been particularly fortunate, breaking but one wheel and but one axle on passenger trains, from which cause no damage was done, and only a detention of a few minutes to the trains.

P. W. STRADER, Gen. Agent.

### Railroads.

#### LOUISVILLE AND MEMPHIS RAILROAD.

To the Memphis Railroad Commissioners:

GENTLEMEN: The instrumental survey over Muldraugh's Hill and Otter Creek has been accomplished, and the accompanying map and profile are submitted to show the nature and amount of the resistance offered to the passage of a railroad at those points. An estimate is also submitted for the first section of the line, extending from Louisville to the coal-fields of Western Kentucky.

Although coal of good quality and sufficient thickness exists as near as sixty miles from Louisville, yet it is highly probable that the researches of the geologist may find it much nearer, when it is considered that no attention has been paid to that section of country by any one skilled in science, and that the existing openings are due solely to the efforts of blacksmiths in search of fuel.

The estimate I have made for the entire cost averages but \$16,600 per mile. This, though somewhat less than other roads in this State, is not so small as that for roads constructed elsewhere in the coal formations. It also embraces no allowance for equipment, right of way, or engineering expenses.

The equipment will vary from two to four thousand dollars per mile, according to the amount of business to be done by the road. The right of way will depend upon the popularity of the road, and the good will of those through whose land it will have to pass; and the engineering expenses somewhat upon the time employed in its construction.

This estimate is based upon an expenditure of means under a system of judicious economy. The enormous cost of some of our railroads is more the result of careless extravagance than of heavy work or high prices.

In order to facilitate comparison, as well as to detect errors, I shall, in giving the details of my calculations, treat separately of the superstructure, the bridging, and the graduation, dividing this last in accordance with the following principle in nature: Thus, the geological formation of the country through which a railroad passes determines the character and amount of work required more definitely than any other known cause. For instance, the cost of graduation on the Ohio and Mississippi Railroad, which runs across the western formations, varies from one thousand dollars per mile, where it is located on

the level lands of the coal strata, up to sixty thousand, where it goes through a strip of the mountain limestone by means of three tunnels and heavy grading. Therefore, in estimating the probable cost of the Louisville and Memphis road I shall divide the graduation into sections, according to the geological formation of the country through which it passes, to wit: from Louisville to West Point, 20 miles in the alluvial bottom land of the Ohio river, from West Point for five miles, comprising the ascent of the outcropping of the mountain limestone at Muldraugh's Hill, from Muldraugh's Hill, twenty miles in the table land of the mountain limestone, and the remaining fifteen miles in the coal measures.

#### THE BRIDGING.

The amount and probable cost of structures for the passage of water under the road bed cannot be accurately estimated in a report not based upon the most definite information, but their span and length may be approximately determined from the size of the streams and by comparison with other roads similarly situated. Say for Salt River 400 feet of bridging, for Otter Creek 150 feet, for Rough Creek 250 feet, and an allowance of 200 feet for small streams, making a total of 1,000 feet to be divided into suitable spans, and supported by 5,000 yards of masonry, properly disposed of in piers. It will be safe to estimate the bridging at the highest price paid Morton & Seymour on the Nashville road—forty dollars per foot and the masonry at \$5 per yard. To these add a further allowance of 2,000 feet of trestle bridging, to be distributed along the bottom land, to allow the flow of water during freshets, worth say \$4 per foot, and one hundred stone drains of different sizes will be amply sufficient for the remaining drainage, and will cost an average of \$21 a piece.

#### THE TRACK.

The cost of superstructure varies continually with the value of iron. At the price stated by Mr. McLeod in his last report, for American iron, (which is the best), it will not exceed \$8,500 a mile, as may be seen from the following items:

|                                  |         |
|----------------------------------|---------|
| 100 tons of iron at \$65.....    | \$6,500 |
| Chairs and spikes.....           | 400     |
| Cross-ties and distribution..... | 900     |
| Track laying and ballasting..... | 700     |
|                                  | \$8,500 |

Iron of 85 tons to the mile can be used with safety, and has been adopted lately on many roads both North and East.

#### GRADING FROM LOUISVILLE TO WEST POINT.

I am not only indebted to the gentlemen of the Nashville Railroad Company for the loan of engineering instruments, but also for the use of Mr. J. P. Robinson's notes of a survey from Louisville to within two miles of West Point. From these notes I learn that the excavation amounts to 188,530 cubic yards, an average of 9,426 yards per mile, equal to an embankment about three feet high for the whole distance, which at 18-2 cents per yard (Morton & Seymour's contract price) amounts to \$1,744. I find also that there are 22 stone drains, averaging 50 yards each, and a trestle bridge of 25 feet span.

I shall estimate the earth work from Louisville to West Point at an average of two thousand dollars per mile for the twenty miles, with an extra allowance for water way.

#### MULDRAUGH'S HILL.

The geological position of the range called Muldraugh's Hill is the outcropping of the cave or mountain limestone which skirts the western boundary of the Salt River Valley. This formation possesses the peculiar property of yielding but slowly to the disintegrating influences of frost and moisture, while it is more readily dissolved by the action of water containing carbonic acid in solution; hence the number of caves in its formation; hence also the precipitous cliffs which border its rivers, and present more formidable obstacles to the progress of engineering enterprises than the granite hills of New Hampshire or the passes of the Allegheny Mountains.

The reconnaissance of Messrs. Lee, Newell, and Long, plainly show that there exist choice routes at the point in question. In order to test the accuracy of their review, it was thought ad-



visible to (as but one line could be run) to select the most difficult, well knowing that if it should prove practicable the others would be much more so. Therefore, leaving the route surveyed by Mr. Robinson, where it enters the valley of Pond creek, about two miles distant from West Point, a line was run upon the ridge between Pond creek and the Ohio river. This line crosses three sloughs by means of trestle work, and with an embankment four feet high, and a bridge over Salt river, four hundred feet long, commences the ascent of Muldraugh's Hill (See map.)

This formidable obstacle will be overcome by a gradually ascending grade of but 52 feet to the mile, or a rise of one foot in a hundred, developed on a sloping hillside and continued for a distance of five miles. (See profile.) Muldraugh's Hill, although attaining but about one-half the height which it has further up in the country, might have been a much greater impediment if it were not for a singular freak of nature called the Natural Bridge. This bridge is an arch of rock, which completely spans and hides a small stream and affords an opening for a railroad to attain the high lands by means of its easy excavation (See map.) Should the Company dislike the gradient of 52 feet to the mile, a way is open to them around the base of Muldraugh's Hill, ascending along the valley of Otter creek by a grade not greater than 25 feet per mile, avoiding both the rise to and the fall from the ridge between the Natural Bridge and Otter creek. This route is preferred by Col. Long, whose great experience and continued service justly entitle him to the appellation of the father of railroads in this country. If the fear of high water causes apprehensions in regard to this route, a deep but short cut will give access to Potter's Branch, one of the tributaries of Otter creek, avoiding the high water, shortening the line, and opening one of the finest quarries in the vicinity of Louisville. Besides these routes, others by the way of Bee Branch, of Abram's Run, of the Oil Springs, and of Doe Run, all claim attention and should have judicious examination before the road is definitely located.

It is fortunate that all these ascents to the table land can be made in the vicinity of the Ohio river where the ridge is low, as it consequently avoids the use of a tunnel on any of the before-mentioned routes. Tunnels are dangerous to life, and often cause interruption to travel by the falling of rock. Among so many routes it is difficult for an engineer in advance of that accurate survey, which must occupy months, and by the aid of only one random line, to determine the cost of the best line. Under such circumstances, he can only be expected to make his estimate large enough to include the best that he has been enabled to discover, leaving the task of improving the line and cheapening the road to those who may have the opportunity of conducting the examinations under the future board of directors.

I shall therefore estimate the five miles of cutting and filling for the ascent to the table lands at the sum of twenty-five thousand dollars per mile, with the expectation that if the grade is made more gradual by avoiding the hill, the decrease of cost per mile will more than compensate for the increase in the length of the line.

#### THE LIMESTONE REGION.

The table land of the mountain limestone is elevated about 250 ft. above the Ohio river bottom, (see profile,) and gradually rises as it recedes from the river. Its characteristics are those of a gentle undulating country, diversified by sandy ridges, about 100 feet high (see map), which are remnants of the coal series. These ridges need not be crossed, as they have the same general direction with the road, i. e. north-east and south-west. They divide the country into valleys from one to four miles wide, interspersed with sink-holes, caves and sunken streams. Until the ascending grade to the high land has been decided upon, it is impossible to say in which of these valleys the road will be located.

However, their topography is so similar that this uncertainty need make no difference in the amount of work. I find, by referring to the report of Mr. Robinson, that he has estimated the

grading for nine miles of a like district, extending from Elizabethtown to Nolin, at 210,000 cubic yards, or \$4,212 per mile.

I have concluded to estimate the grading of this section at \$4,000 per mile, the same amount as was Mr. Lee, in an able report to the Commissioners, estimates an average for the whole line.

#### THE COAL REGION.

As the instrumental line terminated at Big Spring, the place where the first coal was found, no line was run through the coal formations. But a reconnaissance was made to ascertain the natural features of the country, and the thickness, position and extent of the coal seams.

The position of the coal is co-extensive with the strata in which it is found, and covers whole counties. The most profitable thickness for the working of coal is from three and a half to six feet, and most of the seams are within these limits. The quality is both cannel and bituminous. Many of the owners offer to deed all mineral lands to the company, who could transfer their rights to others, reserving only the transportation to market at a fixed rate.

In reference to the natural features of the country, Mr. Livermore remarks, in the conclusion of his valuable report: "The topography of much of the country over which the direct line traverses is very poorly understood by travellers passing over the roads as they are generally made. They are almost uniformly located upon the elevated ridges, regardless of their height. This is in order to keep clear of the level bottoms of the creeks and branches which have so slight an inclination as to prevent the passing off of the water, consequently unfit for roads without much labor in rising them above the level. These bottoms are, however, well adapted to railroads, the rising of which two or three feet will render them perfectly dry—their similar inclination giving to the railroad a decided advantage in grade."

The estimate upon the Fort Wayne road, where the line is as favorably located, varies from one to four thousand dollars per mile. I shall estimate this section at five thousand a mile.

#### RECAPITULATION.

From the foregoing statements we can gather the following summary:

|                                                                          |                  |
|--------------------------------------------------------------------------|------------------|
| For clearing, grubbing and grading to West Point, 20 miles at 2,000..... | \$40,000         |
| Muldraugh's Hill, 5 miles, at \$25,000.....                              | 125,000          |
| Limestone region, 20 miles, at \$4,000.....                              | 160,000          |
| Coal measures, 15 miles, at \$5,000.....                                 | 75,000           |
| 5,000 yards best bridge masonry, at \$5.....                             | 25,000           |
| 1,600 feet best bridging, at \$10.....                                   | 40,000           |
| 2,000 feet trestle bridging, at \$4.....                                 | 8,000            |
| 100 stone drains, at \$120.....                                          | 12,000           |
| 60 miles track, at \$4,500.....                                          | 510,000          |
|                                                                          | <b>\$905,000</b> |

By dividing the above by 60, the length of the line, we get \$15,083 as the average cost per mile.

For the continuation of the road to the State line, a distance of 119 miles, I think, judging from the reports already made, that with an exception of one hundred thousand dollars, for the crossing of Green river, (double the amount estimated by Mr. Robinson for Barren river,) that the residue of the work might be done for seventeen thousand dollars a mile, a total of \$1,970,000; making the cost of the entire line from Louisville to Tennessee fall short of three millions of dollars, and showing the feasibility of its construction.

But the practicability of an enterprise is one thing, the expediency of undertaking it another, and needs consideration from an entirely different point of view. In enumerating the advantages that this road will confer upon the city of Louisville, I shall pass over those that it holds in common with all roads constructed through rich agricultural districts, in the transportation of passengers, grain, tobacco, hogs, dry-goods and groceries, and confine my attention solely to those products, the carrying of which it will have exclusively to itself, namely, superior building stone, sand stone, pig iron, and coal.

Mr. Filion, contractor for the stone work of the Custom House, has kindly furnished me with the following facts:

The United States Government, on account of the ease with which mountain limestone can be worked by tools, and of its great durability in building, have forbidden the use of any other kind of stone in the construction of the Custom House. This material is brought from the quarry near Bedford, where the New Albany and Salem Railroad penetrates the mountain limestone region, a distance of seventy miles from the river. Freight is paid at the rate of two cents per ton per mile, or \$140 per ton to New Albany; to this add for hauling to Louisville \$110, making the cost of transporting from the quarry to the stone yard \$250 per ton. This same stone could be brought by the Memphis road from Muldraugh's Hill for 50 cents a ton, making such a saving in the cost of material that our streets could soon be ornamented with handsome buildings at quite a moderate expense. Mr. Needham not only concurs in the above statement, but wishes me to add that he knows of quarries in the vicinity of West Point which yield stone of very superior quality, and that the opening of this road will enable us to compete successfully in the Southern market with the finely chiseled stone work now so much used in building. This would create in Louisville a new branch of business, exporting from twenty-five to thirty thousand dollars worth of work in a year.

The sand stone used in the manufacture of glass is found twenty-eight miles from Louisville, among the Indian hills. It is one of the rocks of the coal formation. Its color is pure white; its grain sharp and fine. It has been used at the Louisville glass works in considerable quantities with great success. The annual supply for one furnace is five thousand barrels. Mr. Bannon, of the Terra Cotta Works, who did the fine plastering in the Cathedral, has examined the sand from it. He thinks it better than the famous sand from St. Genevieve, which sells at three dollars a barrel. He estimates the yearly demand for plastering at one thousand barrels, and for export several thousand more.

Iron ore abounds along the line within sixty miles of Louisville, but to reach the famous black band ore of Prof. Owen, at least one hundred miles of road are necessary. Mr. Fisk of the Merchant's Exchange, says that the import of pig iron for the year ending August, 1855, was 12,600 tons. Captain Coleman, of the rolling-mill, estimates the average price of freight paid on it at four dollars per ton. The Memphis road could bring this for two dollars per ton, or three cents per ton per mile, making twenty-five thousand dollars. The annual product of each furnace is about fifteen hundred tons, which would pay for transportation \$3,000.

The quantity of coal imported during the last year, as given by Mr. Fiske in the new directory, is 6,862,509 bushels. Mr. Mitchel thinks this is on the increase at the rate of fifteen per cent. annually; this, in four years, [the time necessary to complete the first sixty miles,] will reach 10,980,000 bushels. He estimates the average cost to the retail consumer at fourteen cents, and to the manufacturer at eleven cents. Mr. Gamble, the former Superintendent on the Frankfort road, informs me that the entire cost of running a freight train may be estimated at one dollar per mile; this, for sixty miles, if the cars return empty, will amount to one hundred and twenty dollars; and he thinks twenty cars, each carrying two hundred bushels, or an aggregate of four thousand bushels, a small load on the Frankfort road, where the grades rise to fifty-two feet per mile. Four thousand into twelve thousand cents gives the transportation price of three cents per bushel for the sixty miles. Mr. Hyatt, now engaged in the mining of coal up the river, says coal can be placed on the cars at less than three cents by white labor, and still less by using the labor of slaves. This makes the cost of coal in the city six cents per bushel; therefore, selling at seven cents to the manufacturer and at eight cents to the retail consumer, will make an annual saving to the city of five cents per bushel, or over half a million of dollars in 1860, with the additional advantage that the coal will not be paid for in money, but in merchandize of various kinds



consumed at the mines and among the railroad hands. Supplying coal to steamers at West Point will suggest itself and need not be dwelt on here.

I have in my possession documents from citizens of Grayson county donating to the railroad company four thousand acres of the best coal land, containing seams from three to ten feet thick. The most liberal feeling exists there in favor of subscribing largely in mineral lands to the capital stock of the railroad. It would be sound policy in the company to lease, gratis, to competent persons, quarries, iron beds and coal fields, reserving to themselves the carrying trade at moderate profits. By so doing they would soon double the number of inhabitants in the counties, and make Louisville a great manufacturing city.

In regard to the time when the building of this road should be undertaken, it should be considered that Louisville, although a large place, can boast of but few men of enterprise, and that forcing a project, however beneficial, is apt to cause apprehensions in minds not aware of the march of improvement elsewhere. We cannot hope to progress faster than our usual speed, and by reference to the past, we may form some idea of what may be done in the future. The Frankfort road of 65 miles was commenced in 1836; two years of grading was done upon it when it was abandoned; it was recommenced in 1848 and finished in 1850, at a cost of one and a half million of dollars. The Nashville road, of 185 miles, was begun in 1851; at present it is not one-fourth done, but it is hoped it will be finished in 1859.

Each of these roads after organization passed through a state of inception for several years, during which time the public was gradually made aware of its importance. From these precedents we conclude that the building of this sixty miles will probably occupy the time of four years, and that if we wish to enjoy its advantages as early as in 1860, we should take immediate steps to ensure public aid and favor, as soon as the promised million from the city secures the completion of the Nashville road. It would be futile to expect much aid for construction from our citizens, until the Nashville road had ceased to be a burden to them, which will be in about a year; no heavy call on stock can be made until after that event. But the immediate organization of the company, while it would abstract but little from the general purse, would enable them to secure lands, to commence surveys, to collect information, and to do many things that are requisite to prepare for more energetic work, when attention has been awakened and means made available. Respectfully submitted.

WM. F. BEACH.

**WHAT RAILROADS ARE DOING FOR THE WEST.**—The official returns of the new census of Illinois have just been received. The entire population is over 1,300,000, which is a gain of about 50 per cent. upon the census of 1850. By comparing the increase through the several decades and semi-decades since the census has been taken, it will be seen that the gain has been much larger during the last five years than in any former period.

|                                         |         |
|-----------------------------------------|---------|
| From 1810 to 1820 the increase was..... | 42,923  |
| " 1820 to 1830 " .....                  | 102,234 |
| " 1830 to 1835 " .....                  | 114,982 |
| " 1835 to 1840 " .....                  | 204,756 |
| " 1840 to 1845 " .....                  | 185,942 |
| " 1845 to 1850 " .....                  | 198,245 |
| " 1850 to 1855 " .....                  | 448,781 |

The railroad system has been developed in Illinois within the last five years, and one of the fruits, we see, has been to double the population. A correspondent showed the other day that another was to quintuple the value of her land. Add to these the improved society, the multiplied educational and moral influences, such as the newspapers, cheap books, &c., which follow population, and take advantage of all cheap methods of communication, and then one may begin to appreciate the advantages of the modern railway system as an engine of civilization.

**NEW RAILROAD SCHEME.**—A new Railroad project is now on foot, and from the present indications, we judge that the movers of it will be successful. It is proposed under the charter of the "Nicholson Run and Pine Swamp Railroad Company, to construct a railroad from New Castle, Pennsylvania, to Darlington, there tapping the Ohio and Pennsylvania Railroad. The distance is thirteen miles. The total cost is estimated at less than \$300,000 of which the county of Lawrence has subscribed \$15,000 and the Cleveland and Mahoning Road has agreed, it is said to subscribe \$100,000 more. Parties at New Castle and other places have subscribed nearly half the remaining \$50,000, and only \$20,000 are asked of the citizens of Pittsburg and Alleghany. Mr. Sankey, of New Castle, is now on a visit to Pittsburgh, with a view to securing the requisite amount of stock, which will no doubt readily be obtained.—*Mahoning Register.*

#### NORTH PENNSYLVANIA RAILROAD.

OFFICE OF THE NORTH P. A. R. R. Co. }  
PHILA., No. 123 Walnut st., Dec. 27, '55. }

To the Road Committee—

Gentlemen:—According to the estimate made, Ed. Miller, Chief Engineer, as exhibited in a tabular statement submitted without, the totals on the 20th inst., and with the totals appended on the 22d inst., the amount of work, &c., remaining Dec. 1st, was as follows, to wit:

|                                                              |              |
|--------------------------------------------------------------|--------------|
| Graduation and Masonry—Main Line....                         | \$476,601 75 |
| Branches.....                                                | 19,511 00    |
| Total graduation and Masonry.....                            | \$496,112 75 |
| Ballasting—Main Line and Branches.....                       | 67,000 00    |
| Bridge superstructures—Main Line and do.                     | 32,550 00    |
| Road superstructure, do. do.                                 | 398,000 00   |
| Buildings, platforms, road crossings and water stations..... | 40,000 00    |
| Additional rolling stock and machinery..                     | 78,000 00    |
| Contingencies.....                                           | 34,337 25    |

|                           |                |
|---------------------------|----------------|
| Total remaining.....      | \$1,146,000 00 |
| Retained per centage..... | 47,959 10      |

|                            |                |
|----------------------------|----------------|
| Total amount required..... | \$1,193,959 10 |
| Payable in stock.....      | 208,950 00     |

|                                                                     |              |
|---------------------------------------------------------------------|--------------|
| Balance.....                                                        | \$985,009 10 |
| Add for these items at least, (T. S. F.)...                         | 150,000 00   |
| To raise these items to about \$8,000 per mile, add (T. S. F.)..... | 300,000 00   |

|                                                                        |                |
|------------------------------------------------------------------------|----------------|
| Total money wants for construction and equipment, from Dec. 1st.....   | \$1,785,009 10 |
| Add for Branch road to, and wharves for coal along Delaware river..... | 350,000 00     |

|                                                                         |                |
|-------------------------------------------------------------------------|----------------|
| Grand total of money wants, from December 1st, for foregoing items..... | \$1,785,009 00 |
| Bills payable for floating debt, this date..                            | 334,000 00     |

|                                              |                |
|----------------------------------------------|----------------|
| Aggregate wants of the Treasury.....         | \$2,119,009 10 |
| Bonds secured by first mortgage, \$2,500,000 |                |
| Bonds sold and proceeds gone, to date.....   | 266,500        |

|                                         |             |
|-----------------------------------------|-------------|
| Bonds unsold this date.....             | \$2,243,500 |
| At seventy-five per cent, will net..... | 675,125 00  |

|                           |              |
|---------------------------|--------------|
| Deficit.....              | \$443,884 10 |
| Add for right of way..... | 50,000 00    |

|                                                                 |              |
|-----------------------------------------------------------------|--------------|
| Wants over proceeds of first mortgage bonds, a 75 per cent..... | \$483,884 10 |
|-----------------------------------------------------------------|--------------|

The additions which I have made, will, I am sure, be found hereafter to be moderate and rather under than over the sum needed to provide a suitable outfit, &c., for the business of the road, when the track shall have been put down.

It seems, from Mr. Miller's figures, to have been his primary and chief consideration, to exhibit with comparative distinctness, the cost of work remaining Dec. 1, 1855, for the bed and iron of the trackway. But, to me, it is obvious that to make a trackway, when finished, or even passable, available to its own-

ers, the direction will be required to finish the necessary rolling stock, depots, &c., to accommodate traveling and transportation upon the road.

Respectfully submitted,

THOS. S. FERNON.  
Chairman of Road Committee.

#### ESTIMATE OF THE AGRICULTURAL PRODUCTS OF THE UNITED STATES FOR 1855.

We have been obligingly furnished, says the *National Intelligencer*, from the Patent Office, with the subjoined interesting approximate estimate of the agricultural products of the United States for the year 1855, made up from the most authentic accessible data, by D. J. Browne, Esq., the efficient Superintendent of the Agricultural Division of the Bureau. It may be here stated that if there be any error in the estimate it is in falling below rather than above the truth, either in the quantity or value of the products:

##### VEGETABLE PRODUCTS.

|                         | Valuation.                      | Total Value.  |
|-------------------------|---------------------------------|---------------|
| Indian Corn.....        | 600,000,000 bu's at 60 cts..    | \$360,000,000 |
| Wheat.....              | 165,000,000 " at \$1 50.....    | 247,500,000   |
| Rye.....                | 34,000,000 " at \$1.....        | 34,000,000    |
| Barley.....             | 6,600,000 " at 90 cts.....      | 5,940,000     |
| Oats.....               | 170,000,000 " at 40 cts.....    | 68,000,000    |
| Buckwheat.....          | 10,000,000 " at 50 cts.....     | 5,000,000     |
| Potatoes all sorts..... | 110,000,000 " at 37 cts.....    | 41,250,000    |
| Flaxseed.....           | 58,000 " at \$1 25.....         | 72,500        |
| Beans and Peas.....     | 9,500,000 " at \$2.....         | 19,000,000    |
| Clover and Grass        |                                 |               |
| Seed.....               | 1,000,000 " at \$3.....         | 3,000,000     |
| Rice.....               | 250,000,000 lbs. at 4 cts.....  | 10,000,000    |
| Sugar, (cane).....      | 505,000,000 " at 7 cts.....     | 35,350,000    |
| " (maple).....          | 34,000,000 " at 8 cts.....      | 2,720,000     |
| Molasses.....           | 14,000,000 gal's at 30 cts..... | 4,200,000     |
| Wine.....               | 2,500,000 " at \$1.....         | 2,500,000     |
| Hops.....               | 3,500,000 lbs. at 15 cts.....   | 525,000       |
| Orchard products.....   |                                 | 25,000,000    |
| Garden products.....    |                                 | 50,000,000    |
| Tobacco.....            | 190,000,000 lbs. at 10 cts..... | 19,000,000    |
| Cotton.....             | 1,700,000,000 " at 8 cts.....   | 136,000,000   |
| Hemp.....               | 34,500 tons at \$100.....       | 3,450,000     |
| Flax.....               | 800,000 lbs. at 10 cts.....     | 80,000        |
| Hay & fodder.....       | 16,000,000 tons at \$10.....    | 160,000,000   |
| Pasturage.....          |                                 | 143,000,000   |

##### DOMESTIC ANIMALS AND ANIMAL PRODUCTS.

|                                                        | Valuation.                         | Total value.  |
|--------------------------------------------------------|------------------------------------|---------------|
| Horned cattle.....                                     | 21,000,000 at \$20 each.....       | \$420,000,000 |
| Horses, asses & mules.....                             | 5,100,000 at \$60 each.....        | 306,000,000   |
| Sheep.....                                             | 23,500,000 at \$2 each.....        | 47,000,000    |
| Swine.....                                             | 32,000,000 at \$5 each.....        | 160,000,000   |
| Poultry.....                                           |                                    | 20,000,000    |
| Slaughtered animals.....                               |                                    | 900,000,000   |
| Butter & cheese.....                                   | 300,000,000 lbs. at 15 cts.....    | 75,000,000    |
| Milk (exclusive of that used for butter & cheese)..... | 1,000,000,000 gal's at 10 cts..... | 100,000,000   |
| Wool.....                                              | 60,000,000 lbs. at 35 cts.....     | 21,000,000    |
| Beeswax & honey.....                                   | 16,000,000 " at 15 cts.....        | 2,400,000     |
| Silk cocoons.....                                      | 5,000 " at \$1.....                | 5,000         |

Our crop of Indian corn, if we value it at but one half the present market price, amounts to more than all the gold from California; and our wheat crop, at the most moderate estimate is worth as much as all the gold in the country; while the moderate growth of oats, with all reasonable allowances for exaggeration, more than equals any two years' produce of the California mines.

**MILWAUKEE AND MISSISSIPPI RAILROAD.**—The Board of Directors of this pioneer railroad, at their meeting yesterday, declared a dividend on their last six months' business, of five per cent. in cash, and seven per cent. in stock, making, with the five per cent. cash dividend in July last, a total for the year of seventeen per cent.



## SOUTHERN RAILROADS.

We have lately taken the trouble to draw the attention of the readers of our journal to some of the plans of Internal Improvement which are in progress or in projection, having for their object the connection of the southwest, and particularly its great commercial capital, New Orleans, with the Atlantic and Pacific seaboard, and facilitating trade and travel between it and other sections of the country.

There remains one great, and we think perfectly practicable, plan to which we have not devoted much time or space in our columns.

We have before us the report of the President, Hon. David L. Yulee, to the Directors and stockholders of the Florida Railroad Company, written in contemplation of the early commencement of the work, and containing some views respecting the probable source of its business. As among these, the trade with New Orleans and the valley of the Mississippi, are prominently counted on; and as if completed according to the plan laid down, this work must greatly facilitate the intercourse between this section and the Atlantic, we presume some description of it will not be unacceptable to our readers.

The Florida Railroad route, or that part of it which at present engages the attention of the company, lies across the peninsula of Florida from Fernandina, on the Atlantic, in latitude 30 deg., 40 minutes, longitude 81 deg. 37 minutes, to Cedar Keys, on the Gulf of Mexico, in latitude 29 deg. 07 min., longitude 83 deg. 03 min. Its length as surveyed, will be 137½ miles, and the track will be laid on an air line between the two terminal points, there being no natural obstacle to interfere with this purpose.

By carrying this plan into execution, the company propose to furnish a sure remedy for the heavy increased insurance the dangerous navigation through the Straits of Florida imposes on the Gulf trade; to prevent the loss of time in that navigation, and consequently the loss of interest on capital employed in that trade; greatly to increase the mail facilities; to give security to our commerce, particularly that coming under the head of coasting trade, during a period of hostilities; on all which points the report of the President and the documents accompanying it, are full and convincing. To give the reader an idea of the advantages to be secured to us by this route, we would here state, on the authority of Lieut. Smith, of the Topographical Engineers, who made the survey, that the time according to present rates of traveling would be as follows: From New York to St. Mary's sixty hours; St. Mary's to Cedar Keys, four hours, and from Cedar Keys to New Orleans, thirty-six hours—or, four days and four hours; and this without exposure to the dangerous navigation through the Straits of Florida.

At both the termini of the proposed roads the harborage is described and proved to be of the best possible character in commercial and military points of view, and indeed the practicability of every part of the work is clearly and convincingly demonstrated. The connection between New York and Fernandina, will, of course, be made by first class steamers, and in a letter to Mr. Yulee from that master-builder, George Steers, whose fame as a naval architect is now world-wide, we find a guarantee that, if the construction of the proposed vessels be confided to his supervision, those to run from New York to

Fernandina, and from Charleston to the same shall have a speed of eighteen nautical miles per hour; and those from Cedar Keys to any point in the Gulf, to have a speed of twenty nautical miles per hour; "the safety, comfort and accommodation for passengers to be unsurpassed by any steamers in the world." This speed, says the report before us, would make the time by this route between New York and New Orleans, only *two days and nineteen hours*.

Mr. Yulee's statement is extremely circumstantial and statistical, and seems to us very clearly to demonstrate that this enterprise must result in public benefit, and that the proposed road must prove a profitable investment, in view of the facts that the large agricultural productions of one of the finest and most rapidly developing portions of the South must be thrown upon this route; that it will have a large naval store and lumber business throughout its length; that roads from the West, East and South, will connect with it, adding, of course, to its local resources; that it will be indisputably the only route for trade and travel between the Southern Atlantic ports and the Gulf; that it has not, and never can have, any other competitor for the transportation business between New York and the Gulf ports than the sea route, over which the difference of insurance and greater despatch give it a decided advantage; and that it possesses fair grounds of claim for a good share of the travel between the whole Atlantic slope and New Orleans and the Pacific.

## LOSS OF OUR TRADE WITH THE NORTH.

There are potent causes at work that will gradually diminish, and possibly eventually annihilate, our trade with our Northeastern Free States. One of those causes is the growing hostility to our institution of domestic slavery—an hostility which is but increased and exacerbated by the harmonious working of our social system, and the jarring discord of theirs. Another cause is, the various railroad connections about to be formed between the Slave States and the Northwest. Under those circumstances, it becomes useful and interesting to inquire what we shall lose, and what we shall gain, by the new direction which our trade will take.

The climate and soil of the South are far better adapted to agriculture than those of the North. They raise no agricultural product which we cannot produce cheaper and better than they. The immense amount of manufactured goods which we obtain might be made with less of cost and labor at home, because much of the raw material from which they are manufactured has now to pay the expenses of two sea voyages, and several sales and transfers, which would be saved. If we did not manufacture entirely for ourselves, as it is probable from our agricultural advantages we should not, it would still require less of labor, to have the Northwest, which adjoins us, manufacture for us, than to rely on the North.

The Northwest, like ourselves, need nothing from the North, but would require immense supplies from the far South—from the West Indies, South America, Asia and California. Cut off from the trade of Europe and the North, we must manufacture much for ourselves, and build up and employ a mighty mercantile marine, to carry on the trade for ourselves and for the

Northwest, with Asia, Africa and South America. The Northern market, for our agricultural products, is precisely proportionate to the amount of manufactured and other goods which we buy from them. If we bought those articles at home and in the Northwest, we would create a market exactly equal to the one we had lost. We should not only combine the profits of agriculture with those of manufacturing and the mechanic arts, but we should attain what is of a vast deal more importance—we should educate a population, skilled in all the arts, trades and avocations that minister to the wants, the tastes and luxuries of a wealthy, enlightened and refined people. We should then and not till then, enjoy actual independence. Commercial and manufacturing independence is far more important than political independence, because commercial and manufacturing nations levy a heavier tax on their dependants than any despot ever exacted from subject provinces. Labor employed in commerce, or manufactures, in general, pays three or four times as much as farming labor, and in the exchange of the one for the other, the farmer gives the manufacturer three or four hours' labor for one. This is the kind of tax the North ever levies on the South. The loss of their trade will therefore be a great gain.

Connected with the Northwest, and cut off from the trade of the North, we should be better situated than any other people for commerce with the Indies and the South.—This latter trade has made all nations wealthy that have engaged in it. But it has also made them corrupt, luxurious, enervated and short-lived. We do not look with unmixed pleasure to the enormous profits of such trade, because those profits accrue chiefly from superior wit, providence and cunning, coming in contact with the generous, improvident and ignorant. We need the products of the South, however, and they need ours; and the trade, if carried on fairly, will be mutually beneficial. We have some guarantee in the integrity of our population, that they will be satisfied with legitimate profits—some reason to hope, from their love of agriculture, that they will never become exclusively commercial. It will be our own fault if we abuse the mighty advantage which a Southern trade and a connection with the Northwest open up to us. We can neither be great, wealthy, nor independent, without commerce or manufactures. We must so regulate them as not to permit them to run to excess. The loss of the trade with the north will build up all the pursuits and interests pertaining to separate independent nationality. We value their friendship and good-will too much, if they were attainable, rashly to surrender the commercial ties that now bind us together, but their attitude is altogether menacing and hostile, and we choose to let them and our own people see that we can live without their trade. How they can live without our trade we know not, unless they have learned to dispense with food and clothing. Let the South push forward her roads to the West. It is a quiet and certain means of retaliation.—*Richmond Enquirer*.

OVERLAND MAIL COMPANY.—The corporation, under an act of the Missouri Legislature, for the purpose of forming a Joint Stock Mail and Transportation Company from Missouri to California, met at St. Louis on the 14th inst., and organized by electing officers.



## TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK

| COMPANY.                                                 | NATURE OF BOND.                     | INT. DUE.     | OFF'D. ASK'D | SES. OFF'D. ASK'D |
|----------------------------------------------------------|-------------------------------------|---------------|--------------|-------------------|
| Alabama and Tennessee.....                               | 1st mortgage, convertible in 1872   | 7 1872        |              |                   |
| Baltimore and Ohio.....                                  | Transferable. Taxed.                | 6 1885        | 91 93        | 100 54 56         |
| Do do.....                                               | Coupons. Not Taxed.                 | 6 1873        |              |                   |
| Do do.....                                               | "                                   | 6 1880        |              |                   |
| Do do.....                                               | "                                   | 7 1880        |              |                   |
| Do do.....                                               | "                                   | 6 1885        |              |                   |
| Bellefontaine and Indiana.....                           | 1st mortgage, convertible.          | 6 1868        | 98           | 50 38             |
| Buffalo and Penn. State Line.....                        | 1st mortgage, not convertible.      | 6 1866        |              |                   |
| Cleveland and Rock Island.....                           | 1st mortgage, convertible.          | 7 1870        | 93 98        | 86 90             |
| Chicago and Mississippi.....                             | 1st                                 | 7 1862        |              |                   |
| Do do.....                                               | 2d                                  | 7 1874        | 65           |                   |
| Chicago and Aurora.....                                  | 1st                                 | 7 1866        |              |                   |
| Cincinnati, Newcastle and Mich. Real Estate.....         |                                     | 7 1859        | 100          | 97 1/2 100        |
| Cleveland, Columbus, and Cin'tist mortgage, convertible. |                                     | 7 1855        |              |                   |
| Do do do No mortgage, convertible.                       |                                     | 7 1855        |              |                   |
| Cleveland and Mahoning.....                              |                                     | 7 1861        |              |                   |
| Cleveland, Paines, & Ashtabula. 1st mortgage.            |                                     | 7 1861        |              |                   |
| Do do do 2d not convertible.                             |                                     | 7 1860        |              | 50 60             |
| Cleveland and Pittsburgh.....                            | 1st convertible.                    | 7 1860        |              |                   |
| Do do do 2d sec. convertible.                            |                                     | 7 1873        |              |                   |
| Cleveland and Toledo.....                                | 1st mort. not conv.                 | 7 1863        | 93 94        | 50 73 1/2 74      |
| Cleveland, Zanesville, & Cin'ti.                         |                                     | 7 1863        |              |                   |
| Cincinnati, Hamilton & Dayton. 1st mortgage till 1855.   |                                     | 7 1867        |              | 63 65             |
| Do do do 2d mortgage.                                    |                                     | 7 1880        | 85 87        |                   |
| Cincinnati, N. C. & Michigan.....                        | 1st mortgage, real estate, conv.    | 10 5 & 10 y's | 45 47        | 12 1/2 14         |
| Cincinnati Western.....                                  |                                     | 8             | 62 65        | 20 25             |
| Cincinnati, Wil. and Zanesville. 2d                      |                                     | 7             |              |                   |
| Cincinnati, Ind. and Chicago.....                        |                                     | 8 1859        | 35 36        | 10 1/2 12         |
| Cincinnati and Chicago.....                              | Real Estate.                        | 7 1862        | 75 76        | 7 1/2             |
| Columbus, Piqua and Indiana.....                         | 1st mortgage, convertible.          | 7             | 60 61        |                   |
| Do do do 2d                                              |                                     | 7             | 80 80        |                   |
| Columbus and Xenia.....                                  | 1st mortgage, convertible.          | 7 1859        | 67 68        | 84 85             |
| Covington and Lexington.....                             | 2d till 1862.                       | 7 1863        | 62 63        | 50 21 23          |
| Do do do Income.                                         |                                     | 10            |              | 50 20 22          |
| Dayton and Michigan.....                                 | 1st                                 | 7 1867        |              | 50 25 27          |
| Dayton and Western.....                                  | 1st                                 | 7 1862        |              |                   |
| Dayton, Xenia and Belpre.....                            | Real Estate.                        | 10            | 55 61        |                   |
| Eaton and Hamilton.....                                  | 1st mortgage.                       | 7 1862        | 60           | 25 30 31          |
| Erie and Kalamazoo.....                                  | 1st mort. guaranty Mich. S. R. R.   | 7 1862        |              |                   |
| Evansville and Crawfordsville.....                       | 1st mortgage.                       | 7             | 80 81        |                   |
| Fort Wayne and Southern.....                             | 1st mortgage.                       | 7             |              | 14 1/2 14         |
| Franklin and Warren.....                                 |                                     |               |              |                   |
| Galena and Chicago Union.....                            | Pledge of second section, conver.   | 10 1853-6     |              | 100 111 115       |
| Hillsboro and Cincinnati.....                            | 1st mort.                           | 7 1878        | 55 61        | 50 25 27          |
| Illinois Central.....                                    | 1st mortgage, not convertible.      | 6 1875        | 81 85        | 100 95 98         |
| Do do do Freeland.                                       |                                     | 7             | 80 82        |                   |
| Indiana Central.....                                     | 1st mortgage, convertible.          | 7 1866        | 63 65        | 50 45 50          |
| Do do do                                                 |                                     | 10 1857       | 75 80        | 54                |
| Indianapolis and Bellefontaine.....                      | 1st                                 | 7 1860-1      | 75 75        | 50 61 63          |
| Indianapolis and Cincinnati.....                         | 2d mortgage.                        | 7             |              |                   |
| Indianapolis and Lafayette.....                          |                                     | 7 1861        |              |                   |
| Jeffersonville.....                                      | 1st not                             | 7 1861        |              | 50 36             |
| Junction (Ohio).....                                     | 1st                                 | 7 1867        |              | 50 11 15          |
| Do Indiana.....                                          | Real Estate.                        | 10            | 70 72        |                   |
| La Crosse and Milwaukee.....                             |                                     | 8 1864        | 77 82        | 100               |
| Little Miami.....                                        | 1st mortgage, not convertible.      | 6 1883        | 80 81        | 50 90 91          |
| Do do do till 1855.                                      |                                     | 7 1858        | 95 100       |                   |
| Louisville and Nashville.....                            | unconvertible.                      | 7 1858        |              | 100               |
| Lyons', Iowa, Central.....                               | 1st mortgage, convertible.          | 7 1873        |              |                   |
| Mad River and Lake Erie.....                             | 1st mortgage, convertible till 1855 | 7 1855-6      | 70 75        | 50 25 26          |
| Do do do 2d                                              |                                     | 7 1866        | 70 75        |                   |
| Do do do Dividend.                                       |                                     | 7 1860        | 73           |                   |
| Madison and Indianapolis.....                            | 1st mortgage, convert. after 1853.  | 6 1861        |              | 50                |
| Marietta and Cincinnati.....                             | Domestic Bonds.                     | 7             | 50 51        | 50 17 20          |
| Do do do united 2d                                       |                                     | 7             |              | 50                |
| Hillsboro and Cincinnati.....                            | 1st                                 | 7             | 50 55        |                   |
| Maysville and Big Sandy.....                             |                                     | 6 1873        |              | 50                |
| Maysville and Lexington.....                             | 1st mortgage, convertible.          | 6 1873        |              |                   |
| Memphis and Charleston.....                              |                                     | 8 1860        | 97           | 90 1/2 92         |
| Michigan Central.....                                    | No mortgage, convertible.           | 8 1855-6      |              |                   |
| Do do do                                                 |                                     | 8 1857-8      |              |                   |
| Michigan Southern.....                                   | 1st                                 | 7 1860-90     | 100          | 89 90             |
| Milwaukee and Mississippi.....                           | 1st                                 | 8 1862        |              | 85 86             |
| Mobile and Ohio.....                                     | 1st mortgage Gs. 1884               |               |              |                   |
| Nashville and Chattanooga.....                           |                                     |               |              |                   |
| New Albany and Salem.....                                | mortgage on 1st section.            | 10 1858-62    |              | 50 6 10           |
| Do do do 1st on other sec. con.                          |                                     | 8 1864-75     |              |                   |
| New Castle and Richmond.....                             | 1st convertible.                    | 6 1873        |              |                   |
| New York Central.....                                    |                                     | 7             | 100 102      | 93 94             |
| New York and Erie.....                                   | 1st mortgage, not convertible.      | 7 1867        |              | 100 52 53         |
| Do do do 2d convertible.                                 |                                     | 7 1862        | 95 96        |                   |
| Do do do                                                 |                                     | 7 1883        | 92 95        |                   |
| Northern Cross, Ill.....                                 | 1st mortgage, convertible.          | 8 1873        |              |                   |
| Northern Indiana.....                                    | 1st not convertible.                | 7 1861        | 98           |                   |
| Do do do 1st Goshen line.                                |                                     | 1868          | 84 85        | 89 90             |
| Do do do Construction Bonds.                             |                                     |               |              |                   |
| Ohio Central.....                                        | 1st mortgage, convertible.          | 7 1861        | 67           | 20 21             |
| Ohio and Mississippi.....                                | 2d                                  | 7 1880        | 40 42        | 4 1/2 8           |
| Ohio and Indiana.....                                    | 1st                                 | 7 1867        |              | 50 14 18          |
| Ohio and Pennsylvania.....                               |                                     | 7 1865        |              |                   |
| Do do do Income. No mortgage, convert.                   |                                     | 7 1872        |              | 50                |
| Pacific, Mo.....                                         |                                     |               |              |                   |
| Panama.....                                              | 2nd issue.                          | 7             | 107 108      | 100 103           |
| Parkersburg (or N. western Va.).....                     | Guar. City of Balt.                 | 7 1873        |              |                   |
| Pennsylvania.....                                        | 1st mortgage, convert. till 1860.   | 6 1880        |              | 50 43 40          |
| Penn and Indianapolis.....                               | 1st                                 | 7             |              | 25 16 20          |
| Rock River Valley Union.....                             | 1st                                 | 7 1872        |              | 50                |
| Sandusky and Mansfield.....                              | 1st                                 | 7 1860        |              |                   |
| Do do do 2d                                              |                                     | 10 1853-7     |              |                   |
| Scioto and Hocking Valley.....                           | 1st Income.                         | 7 1861        | 50 51        | 50 50 51          |
| Southwestern, Tennessee.....                             |                                     |               |              |                   |
| Springfield and Columbus.....                            |                                     |               |              |                   |
| Steubenville and Indiana.....                            | 1st mortgage, convertible.          | 7 1865        |              |                   |
| Terre Haute and Alton.....                               | 1st                                 | 8 1862 72     | 91 93        |                   |
| Do do do 2d                                              |                                     | 8 1865        | 75 80        |                   |
| Terre Haute and Richmond.....                            | 1st                                 | 6 1866        |              |                   |
| Toledo, Norwalk and Cleveland.....                       | 1st                                 | 7 1863        | 87 88        | 50                |
| Do do do 2d                                              |                                     |               |              |                   |
| Do do do Guofar                                          |                                     | 1863          |              |                   |

## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

|                 | INT. | DRE. | OFF'D. ASK'D |
|-----------------|------|------|--------------|
| U. S. Loan..... | 6    | 1856 | 103 1/2 105  |
| Do.....         | 6    | 1862 | 112 113      |
| Do.....         | 6    | 1867 | 117 1/2 120  |
| Do.....         | 6    | 1868 | 116 1/2 118  |
| Do.....         | 6    | 1862 | 118          |
| Do.....         | 6    | 1867 | 118          |
| Do.....         | 6    | 1853 | 101          |

## STATE.

|                 |   |      |           |
|-----------------|---|------|-----------|
| Alabama.....    | 5 |      |           |
| California..... | 7 | 1870 | 84 1/2 85 |
| Arkansas.....   | 6 |      | 96        |
| Georgia.....    | 6 |      | 98 99     |
| Do.....         | 7 |      |           |

|                           |   |      |         |
|---------------------------|---|------|---------|
| Illinois Canal Bonds..... |   | 1860 |         |
| Do do registered.....     |   | 1860 |         |
| Do do do.....             |   | 1847 |         |
| Do do registered.....     |   | 1847 |         |
| Do do Internal Imp't..... | 6 | 1847 | 105 106 |
| Do Interest do.....       |   |      | 72 75   |

|                           |       |  |           |
|---------------------------|-------|--|-----------|
| Indiana.....              | 5     |  | 81 1/2 81 |
| Do.....                   | 2 1/2 |  | 54 55     |
| Do Canal Loan.....        | 6     |  |           |
| Do do preferred.....      | 5     |  |           |
| Do special preferred..... | 5     |  |           |

|                         |   |         |         |
|-------------------------|---|---------|---------|
| Kentucky, 30 years..... | 6 | 1871    | 102     |
| Do 16 years.....        | 6 |         | 102     |
| Do large bonds.....     | 6 | 1869-72 | 100 1/2 |
| Do.....                 | 5 |         |         |

|                     |   |      |             |
|---------------------|---|------|-------------|
| Louisiana.....      | 6 |      | 93 95       |
| Michigan.....       | 6 |      | 97 98       |
| Missouri.....       | 6 |      | 85 86       |
| New York.....       | 6 | 1873 | 116 1/2 117 |
| North Carolina..... | 6 |      | 99 100      |
| Ohio.....           | 6 | 1856 | 102         |

|                   |   |      |             |
|-------------------|---|------|-------------|
| Do.....           | 6 | 1860 | 102 1/2 106 |
| Do.....           | 6 | 1870 | 107 110     |
| Do.....           | 6 | 1875 | 110 1/2 119 |
| Do.....           | 5 | 1865 |             |
| Pennsylvania..... | 6 |      |             |
| Do.....           | 5 | 1870 | 89          |

|                           |   |      |           |
|---------------------------|---|------|-----------|
| Tennessee, long loan..... | 6 | 1890 | 90 93     |
| Do Coupons.....           | 5 |      | 81 83     |
| Virginia Coupons.....     | 6 | 1886 | 93 1/2 95 |

## CITY SECURITIES.

|                |   |         |             |
|----------------|---|---------|-------------|
| Albany.....    | 6 | 1871-81 | 90 1/2      |
| Allegany.....  | 6 | 1875-7  | 80          |
| Baltimore..... | 6 | 1870-90 | 100 100 1/2 |
| Do.....        | 5 | 1865    |             |

|                   |       |         |             |
|-------------------|-------|---------|-------------|
| Boston Bonds..... | 4 1/2 | 1860    |             |
| Chicago.....      | 6     | 1873-7  | 92 1/2 95   |
| Cleveland.....    | 6     | 1879    | 103 1/2 105 |
| Cincinnati.....   | 6     | 1861-92 | 96 96 1/2   |
| Do.....           | 6     | 1897    |             |
| Do.....           | 5     | 1884    |             |
| Do W. W.....      | 6     | 1865    |             |

|                     |   |         |           |
|---------------------|---|---------|-----------|
| Covington.....      | 6 | 1857    | 80 80     |
| Jeffersonville..... | 6 | 1890    | 25        |
| Louisville.....     | 6 | 1880    | 86 1/2 87 |
| Memphis.....        | 6 | 1882    | 72 1/2    |
| New York.....       | 7 | 1837    | 100 1/2   |
| Do.....             | 5 | 1838-00 | 96 99     |
| Do.....             | 5 | 1870-5  | 97 100    |
| Do.....             | 5 | 1890    |           |

|                   |   |         |           |
|-------------------|---|---------|-----------|
| Philadelphia..... | 6 | 1876-90 | 89 89 1/2 |
| Pittsburgh.....   | 6 | 1869-78 | 81 82     |
| Do coupons.....   | 6 | 1883    |           |
| Racine.....       | 7 | 1873    | 85 86     |
| St. Louis.....    | 6 | 1870    | 85 86     |
| Wheeling.....     | 8 | 1873    | 70 73     |

## COUNTY BONDS.

|                   |   |        |           |
|-------------------|---|--------|-----------|
| Bourbon, Ky.....  | 6 | 1881   | 77 1/2 80 |
| Darke, O.....     | 7 |        |           |
| Fairfield, O..... | 7 | 1862   |           |
| Fayette, Ky.....  | 6 | 1881-3 | 75 75     |
| Hancock, Co.....  | 7 |        | 70 76     |
| Mason, Ky.....    | 6 | 1881   | 73 78     |

|                                                           |   |      |       |
|-----------------------------------------------------------|---|------|-------|
| McCracken Co. Ky., endorsed by New Orleans and Ohio R. R. |   |      |       |
| St. Louis.....                                            | 6 | 1865 | 80 85 |
| Do.....                                                   | 7 | 1871 |       |

## BANKS.

|                                       |  |            |    |
|---------------------------------------|--|------------|----|
| American Exchange Bank, N. Y.....     |  | 118        |    |
| Ohio Life Insurance and Trust Co..... |  | 95 1/2 100 |    |
| Washington Insurance Co.....          |  | 84         | 85 |
| City Insurance.....                   |  | 70         |    |
| Cincinnati Insurance Co.....          |  | 84         |    |
| National Insurance.....               |  | 75         | 80 |

## KENTUCKY.

|                                        |  |             |  |
|----------------------------------------|--|-------------|--|
| Bank of Kentucky and Branches.....     |  |             |  |
| Northern, and Branches.....            |  | 100         |  |
| Southern, and Branches.....            |  |             |  |
| Bank of Louisville.....                |  | 93          |  |
| Kentucky Trust Co.....                 |  |             |  |
| Farmers' Bank of Kentucky, ex div..... |  | 102 1/2 108 |  |
| Commercial Bank of Kentucky.....       |  |             |  |

## INDIANA.

|                              |  |  |  |
|------------------------------|--|--|--|
| State Bank and Branches..... |  |  |  |
| State Bank and Branches..... |  |  |  |
| Union.....                   |  |  |  |
| Planters.....                |  |  |  |

## LAND WARRANTS.

|                                 |  |        |        |
|---------------------------------|--|--------|--------|
| 60 acre warrants, per acre..... |  | Buy'g  | Sell'g |
| 80 acre warrants.....           |  | \$0 95 | 1 00   |
| 40 acre warrants.....           |  | 0 95   | 1 00   |
| 120 acre warrants.....          |  | 1 10   | 1 15   |
|                                 |  | 0 90   | 0 95   |



## RATES OF EXCHANGE.

| Place.            | Time.      | Buy'g. | Sell'g. |
|-------------------|------------|--------|---------|
| On New York.....  | Sight..... | par    | 1/4     |
| Boston.....       | Sight..... | par    | 1/4     |
| Philadelphia..... | Sight..... | par    | 1/4     |
| Baltimore.....    | Sight..... | par    | 1/4     |
| New Orleans.....  | Sight..... | par    | 1/4     |
| England.....      | Sight..... | 109    | 109 1/4 |

## SPECIE.

|                              |         |   |         |
|------------------------------|---------|---|---------|
| California clean, 10 oz..... | \$17 60 | @ | \$17 65 |
| Spanish Doubloons.....       | 16 75   | @ | 16 75   |
| Patriot Doubloons.....       | 15 75   | @ | 15 80   |
| Sovereigns.....              | 4 86    | @ | 4 88    |
| Guineas.....                 | 5 00    | @ | 5 00    |
| American, new.....           | 1 06    | @ | 1 06    |
| American, old.....           | 1 06    | @ | 1 06    |
| Portuguese.....              | 1 00    | @ | 1 00    |

## SILVER.

|                        |          |   |          |
|------------------------|----------|---|----------|
| American Dollars.....  | 1 03 1/2 | @ | 1 04     |
| American Halves.....   | 1 05 1/2 | @ | 1 04 1/2 |
| Spanish Dollars.....   | 1 11     | @ | 1 14     |
| Spanish Quarters.....  | 1 00     | @ | 1 01     |
| Mexican Dollars.....   | 1 03 1/2 | @ | 1 05 1/2 |
| Five Franc pieces..... | 97       | @ | 97 1/2   |

\* The standard English value attributed to the Sovereign is \$4.44 in London. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin.

## LONDON QUOTATIONS

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF  
E. F. SATTERTHWAITHE, STOCK BROKER, LON.  
Dec. 21, 1855.

|                                                      |     |   |     |
|------------------------------------------------------|-----|---|-----|
| Belvidere, Del., guar. 1st mort., conv.....          | —   | @ | 87  |
| Chicago & Rock Island, Mort., conv. 1858.....        | —   | " | —   |
| Cin. Ham & Dayton, 2d mort.,.....                    | —   | " | 80  |
| Erie, 2d Mortgage, 1884.....                         | 84  | " | 85  |
| " Sinking Fund.....                                  | 81  | " | 82  |
| " conv. 1862.....                                    | 75  | " | 77  |
| Grand Trunk (Canada) Reventure.....                  | 82  | " | 87  |
| Great Western.....                                   | 116 | " | 120 |
| " " non-conv.....                                    | 104 | " | 107 |
| Illinois Central, 1st Mort., 7's.....                | 75  | " | 76  |
| " " with option 70 per cent.....                     | 76  | " | 77  |
| shares till Jan. 1-53.....                           | 76  | " | 77  |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill. Cent..... | —   | " | —   |
| Little Miami 1st Mort. not conv. 6's.....            | —   | " | —   |
| Marietta and Cincinnati, 1st Mort.,.....             | —   | " | 80  |
| Michigan Central, conv., 8's, 1850.....              | 93  | " | 95  |
| " do do do 1860.....                                 | 94  | " | 96  |
| New York Central, Not conv., 6's.....                | 79  | " | 81  |
| " " conv., 7's.....                                  | 92  | " | 94  |
| Ohio & Mississippi, 1st Mort.,.....                  | —   | " | —   |
| Ohio and Pennsylvania, Income 1872.....              | 75  | " | 80  |
| Panama No mort., conv., 1-66.....                    | 92  | " | 94  |
| Pennsylvania, 1st Mort., conv.,.....                 | 88  | " | 89  |
| " " Sterling, 2d Mort.,.....                         | 88  | " | 90  |
| St. Louis & Ind., 2d Mort.,.....                     | —   | " | —   |

\* The quotations given are leading quotations. The American value is to be obtained by adding on exchange generally about 10 per cent.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD.

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

## BONDS.

For the week ending January 23, 1856

|                                                                                   |             |
|-----------------------------------------------------------------------------------|-------------|
| \$4,000 Cov'g. & Lex. R. R. Co., 7 per cent. 2d Mortgage Bonds.....               | 67 1/4      |
| 3,000 Cin. & Chicago R. R. Co. 8 per cent. Real Estate Bonds.....                 | 35 and int. |
| 5,000 Cov'g. & Lex. R. R. Co. 10 per cent. Income Bonds.....                      | 62 1/2      |
| 2,000 Cincinnati, Wilmington & Zanesville R. R. Co. 7 per cent. Income Bonds..... | 51 1/4      |
| 2,000 Ohio & Mississippi R. R. Co. 7 per cent. 2d Mortgage Bonds.....             | 40          |
| 3,000 Little Miami R. R. Co., 6 per cent. Bonds, due in 183.....                  | 80          |
| 2,000 Marietta and Cincinnati R. R. Co. 7 per cent. Domestic Bonds.....           | 50          |
| 1,000 Hillsboro' & Cincinnati R. R. Co., 7 per cent. 1st Mortgage Bonds.....      | 50          |
| 500 Burnet House Stock.....                                                       | 40          |

## STOCKS

|                                          |        |
|------------------------------------------|--------|
| 268 Shares Indianapolis & Cin. R. R..... | 60     |
| 100 " do do.....                         | 60 1/4 |
| 50 " do do.....                          | 61     |
| 119 " Little Miami.....                  | 90     |
| 30 " Cin. Wil. and Zanesville.....       | 90     |
| 30 " Ohio Central.....                   | 90     |
| 253 " Indianapolis & Bellefontaine.....  | 20     |
| 100 " Per. & Indianapolis.....           | 15     |
| 10 " Columbus & Xenia.....               | 84     |
| 46 " Eaton & Hamilton.....               | 30     |
| 100 " Ohio & Miss. R. R.....             | 3 1/2  |
| 100 " do do.....                         | 4      |
| 138 " do do.....                         | 4 1/4  |
| 100 " do do.....                         | 5      |
| 10 " do do.....                          | 6      |
| 74 " do do.....                          | 7 1/4  |

|                                   |        |
|-----------------------------------|--------|
| 85 " Covington & Lex.....         | 20     |
| 65 " do.....                      | 20 1/4 |
| 50 " do.....                      | 21     |
| 20 " Cin., Hamilton & Dayton..... | 63     |
| 68 " Cincinnati Insurance Co..... | 60     |
| 25 " Firemen's do.....            | 51     |

## Monetary and Commercial.

We have to notice another week of suspended navigation and consequent inactivity of business. Houses cannot ship goods, and cannot therefore draw for proceeds, hence there is not an over-abundant supply of means in the hands of Merchants. For the same reason the wants of the merchants are smaller, and therefore, while we have little doing, little money and little necessities, we quote the market as moderately easy.—Rates of Discount and Exchange are the same as last week's quotations.

Stocks are somewhat more active, and prices have risen on some varieties. Ohio & Mississippi, which has been as low as 3 and 4 per cent., has rallied under the prospect of a final arrangement to complete the road. The details have not yet transpired, but it is understood that the arrangement is completed.

News from the East is unimportant. The European news is unfavorable to a speedy adjustment of difficulties. Active preparations are making for carrying on the war on a grand scale, and all Europe may soon be embroiled in one general contest.

## NEW YORK STOCK SALES, JAN. 19,

|                                        |         |
|----------------------------------------|---------|
| \$3,000 Indiana State 5's.....         | 81 1/2  |
| 5,000 Virginia 6's.....                | 93 1/2  |
| 2,000 Missouri 6's.....                | 85      |
| 3,000 Cal. 7's.....                    | 84 1/2  |
| 1,700 Ohio 6's 75's.....               | 110 1/2 |
| 4,000 Erie 2d Mort.....                | 95 1/2  |
| 10,000 Erie bds. 75's.....             | 90 1/2  |
| 1,000 Hudson River 1st mort.....       | 99 1/2  |
| 1,000 do do 2d do.....                 | 81      |
| 15,000 Illinois Central.....           | 81 1/2  |
| 350 Snares Mich. So. and No. E. R..... | 89 1/2  |
| 50 " N. Y. Cent. & R.....              | 93      |
| 250 " Erie Railroad.....               | 52 1/2  |
| 10 " Harlem.....                       | 17      |
| 200 " Reading.....                     | 87 1/2  |
| 150 " Hud. River.....                  | 24      |
| 17 " Clev. & Cin.....                  | 97 1/2  |
| 120 " Cleveland & Pittsburg.....       | 55      |
| 100 " Galena & Chicago.....            | 111     |
| 1-0 " Clev. & Tol. R. R.....           | 73 1/2  |
| 104 " Min. & Miss.....                 | 85      |
| 200 " Ills. Central.....               | 95 1/2  |

## SUPREME COURT OF OHIO.

REPORTED BY R. B. WARDEN, OFFICIALLY.

THURSDAY, January 10, 1856.

The Court met pursuant to adjournment; present—Thurman, Chief Justice; Ranney, Bartley and Kennon, Justices.

No. 111, Elliott vs. the C. C. & C. R. R. Co. In error to the District Court of Lorain county.

Thurman, C. J., delivered the opinion of the Court. Held,

1. That the common law doctrine that requires the owner of domestic animals, not unruly or dangerous, to keep them upon his own premises, and makes him a trespasser if he suffer them to run at large and they go upon the uninclosed lands of another, is not the law of Ohio; being inconsistent with our statute law and contrary to the common usage that has always prevailed in this State.

2. That remote negligence of the plaintiff will not prevent his recovering for an injury to his property immediately caused by the negligence of the defendant. The negligence of the plaintiff that defeats a recovery must be a proximate cause of the injury.

3. Suffering domestic animals to run at large, by means whereof they stray upon an uninclosed railway track, where they are killed by a train, is not, in general, a proximate cause of the loss; and hence, although there may have been some negligence in the owner's permitting the animals to go at large, such negligence being only a remote cause of the loss, it will not prevent his recovering

from the railroad company, the value of the animals, if the immediate cause of their death was negligence of the company's servants in conducting the train.

4. The bare fact that a railroad is uninclosed, there being no statute requiring it to be fenced, does not, in general, render the railroad company liable to pay for the animals straying upon the track and killed by a train—such want of fencing being, in general, only a remote cause of the loss.

5. The paramount duty of a conductor of a train is to watch over the safety of the persons and property in his charge, subject to which, it is his duty to use reasonable care to avoid unnecessary injury to animals straying upon the road. Judgment affirmed.

Bartley, J., dissented from the 4th point.

## ASHTABULA AND NEW LISBON R. R.

At the Annual meeting of the Stockholders of the Ashtabula and New Lisbon Railroad Company, holden at the office of said Company on Thursday the 3d inst. The following gentlemen were elected Directors:

Cumfield—Hon. Eben Newton.

New Lisbon—J. H. Quinn.

Niles—Geo. C. Rice.

Morgan—James Stone.

Ashtabula—R. W. Griswold, Henry Fasset, Henry Hubbard.

At a subsequent meeting of the Directors the following officers were elected:

Hon. Eben Newton—President.

Henry Hubbard—Vice President.

O. H. Fitch—Treasurer.

Henry Fasset—Secretary.

The meeting was adjourned and one appointed for the evening at Fisk's Hall. Col. G. W. St. John was called to the chair and Geo. Willard, Esq., was chosen Secretary.—Introductory remarks were made by Hon. Eben Newton, President of the Company.

The meeting was also addressed by Messrs. M. Gillman, S. L. Wadsworth and J. H. Quinn of New Lisbon, J. H. Rahle of Washington and R. D. Hartshorn of Pittsburg, pledging the necessary stock subscriptions to enable the Directors of the Company to put the Southern division of the road under contract, Dr. L. Hanna of Cleveland, an old resident of Columbiana county was called out who made a Scientific exposition of the Mineral resources of the country through which this road passes, Bituminous and Cannel Coal, Black Bank and Kidney Iron Ore, Hydraulic Cement, Quick Lime and Bituminous Shale which produces a valuable article of Lamp Oil in large quantities, and closed his very appropriate remarks by saying that the mineral resources of that region were alone a sufficient guarantee for the outlay of the capital to build the road. The best of feeling prevailed which gave promise of an early completion of the road.

G. W. ST. JOHN, Chairman.

GEO. WILLARD, Sec'y.

## MARION AND MISSISSINUEVA VALLEY R. R.

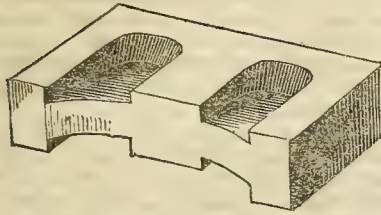
The annual election for directors for the ensuing year, to manage the business of the Marion and Mississinewa Valley Railroad, was held at the office of the Company in this place on Monday. The following gentlemen compose the new board: James H. Goodman, Joel N. Converse, Jeremiah Smith, George S. Howell, Elijah Hockett, N. W. Frazier, Nelson Conner, Benjamin Spader.

The officers of the board will probably be elected at a meeting called at Union on Tuesday next.—Marion Journal.



To BUILDERS & R. R. COMPANIES.

CONKLING'S



## PATENT SCIENTIFIC BRICK.

The Subscriber offers for sale, by State and County rights, the right to manufacture and use his PATENT SCIENTIFIC BRICK.

**CHARACTER OF THE BRICK.**—This improvement consists in moulding and pressing Bricks in such a form as to secure the least exposure of the mortar to the weather, which seriously injures its durability and appearance, and also to provide for the greatest possible cohesion of the mortar to the brick internally, thereby securing the greatest solidity of structures.

**MANUFACTURE OF THE BRICK.**—The form of these Brick is adapted to all qualities and sizes of Bricks and building blocks of whatever material. They require no more skill or labor in manufacture than the ordinary form. For Mould Brick, the cavities are made only on the lower side, but deeper, by fastening two pieces of wood of suitable shape at the bottom of the mould. The top of the Brick is cut off as usual. For Pressed Brick, the cavities may be made on one or both sides, generally on one side only, leaving the upper side flat, to receive a very thin layer of mortar or cement. These Bricks take from eight to ten per cent. less material than ordinary Brick.

**BURNING OF THE BRICK.**—These Brick are burnt in kilns as usual, but owing to the cavities the heat circulates more freely and thoroughly than in ordinary Brick, and burns the Brick more uniformly and quicker than the ordinary form. A saving of more than twenty per cent. of time and fuel is effected by this improvement.

**LAYING THE BRICK.**—They are laid as expeditiously as common Brick, and in the same manner, with as little mortar or cement between joints as is practicable to cement the surfaces and form a level bed for the courses, the whole to be grouted with thin mortar poured in the cavities. Walls thus made are solid and strictly fire-proof, and at least one-fourth stronger than walls of the same thickness, built of ordinary Brick.

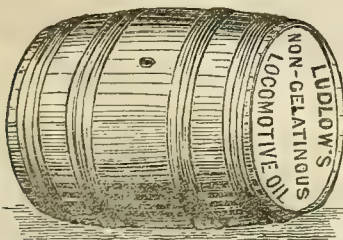
For further information and terms of sale, address, enclosing postage stamp to pay answers,

EDGAR CONKLING.

106 West Fourth Street, Cincinnati, Ohio.

W. D. LUDLOW'S

COMPOUND, NON-GELATINOUS LOCOMOTIVE



## LUBRICATING OIL.

THIS Article is a combination of Lubricating Oils, comes cheaper than any other Pure Oil. Warranted not to cill in any Climate, and is purely non-gelatinous.

Office No. 19 Front St. East of Broadway, Cincinnati, Ohio.

## ALBERT M. SMITH'S PATENT PREMIUM RECLINING & SELF-ADJUSTING CAR SEAT

For a Night and Day High or Low-back Seat, combined in one,

PATENTED AUGUST 21, 1855.



It was awarded two first premiums, a Gold Medal, at the great Fair at the "American Institute," held at N. York, and a Diploma at the State Fair, held at Elmira, N. Y., 1855.

This valuable improvement is adapted and can be applied at a very trifling expense, to the ordinary seat now in use, without impairing its present qualifications as a day seat, and a new seat provided with it, and made in single seats, costs no more than the ordinary seat.

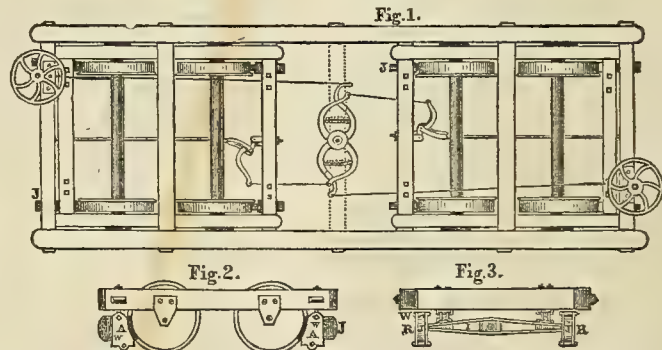
By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects

the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other.

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of **ALBERT M. SMITH, Patentee and Manufacturer,** dec20-ly 13 North St. Paul st., Rochester, N. Y., or **TAULMAN & LOW, 157 Broadway, N. Y.**

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.

Cincinnati, Hamilton, & Dayton R. R.

SECRETARY'S OFFICE, CINCINNATI, }  
December 1st, 1855.

At a Meeting of the Board of Directors of this Company, held this day, a dividend of 5 per cent. on Stock, was declared out of the net earnings of the road to October 1st, 1855, payable to the Stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York on and after the 15th inst., fractional parts to be paid in cash, at the rate of eighty cents on the dollar, at the option of the Stockholders. The Transfer Books will be closed for ten days from this date.

Dec. 6-1m

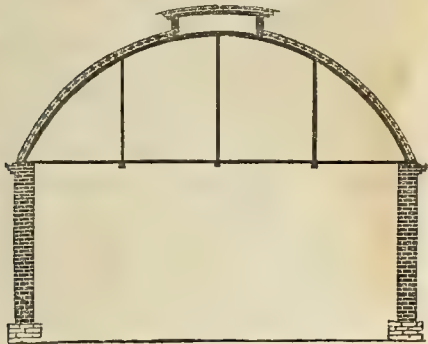
FRANKS S. BOND, Secretary.

IRON BOILER FLUES.  
PASCAL IRON WORKS.

MORRIS, TASKER & CO.,  
Manufacturers of  
LAP-WELDED BOILER FLUES,  
1 1/2 to 7 inches outside diameter, cut to definite lengths, as required.  
WROUGHT IRON WELDED TUBES,  
From 1/2 to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.  
Warehouse, 85 South Third St.,  
PHILADELPHIA.



## MOSELEY'S Tubular Wrought Iron ARCH ROOFS.



OFFICE, NO. 57, WEST THIRD ST.  
CINCINNATI, OHIO.

The supporting parts of these roofs are made in the same manner as Moseley's

### TUBULAR BRIDGING.

The tubes are light and of immense strength, capable of bearing twenty times more burden than will ever go upon them. Such roofs can be built in less than half the time, weigh much less and cost less than any plan of Iron Supporting now in use, and no more than good wooden Trusses; besides, this plan of roofing gives a fine architectural appearance, is all iron, and proof against injury to walls, etc., by expansion and contraction. We are prepared to manufacture roofing, after this plan of any size and span, in any and all parts of the country, on the shortest notice.

MOSELEY, WINSTON & MOSELEY.  
THOS. W. H. MOSELEY,  
Sup. and Engineer.  
JOHN BAN ON & CO  
Special Contractors

January 1st., 1856]



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,  
North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,  
CINCINNATI.

**BANK NOTE ENGRAVING.**  
DANFORTH, WRIGHT & Co.,  
No. 25 West Third Street, Cincinnati.  
Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**  
BANK NOTE  
ENGRAVERS AND PRINTERS.

Also, engraved in a style corresponding in excellence  
with that of Bank Notes—

**RAILROAD, STATE, AND COUNTY BONDS,**  
BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order  
of a superior quality.

The above office is under the supervision of  
GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.

**D. D. MILLER,**

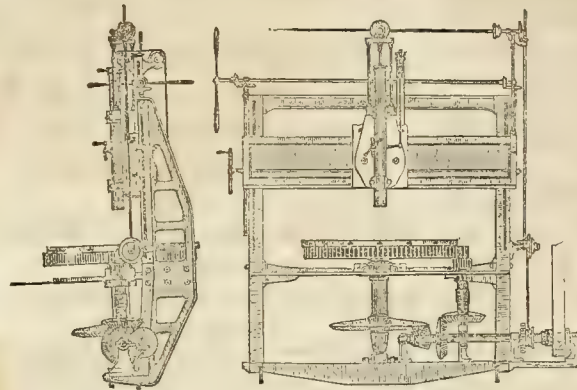
Manufacturer of

**LOCOMOTIVE, RAILROAD AND HAND  
LANTERNS,**  
180 Water Street New York.

## NILES' WORKS.

### FOUNDERS AND MACHINISTS,

EAST FRONT STREET, CINCINNATI,



Manufacturers of  
**TYRE LATHES,**

Of the most approved plan.

**HORIZONTAL  
FACE PLATE LATHES,**  
OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

**PLANING MACHINES**  
LARGE & SMALL.

### MARINE & STATIONARY ENGINES.

BOILERS OF EVERY DESCRIPTION.

### HEAVY FORGINGS,

IRON AND BRASS CASTINGS, &C., &C.

### BANCROFT & SELLERS,

16th Street and Pennsylvania Avenue,  
PHILADELPHIA, PA.,

Manufacture, in addition to their well  
known class of

**ENGINEERS' & MACHINISTS' TOOLS,**  
SHAFTING, GEARING,

**PULLEYS, COUPLINGS,**

AND

**BANCROFT'S PATENT SELF-ADJUSTING  
HANGERS & PEDESTALS;**

Together with general Millwright Work for Railroad  
and Locomotive Shops, Factories, etc.

— ALSO —

### CAST IRON TURN-TABLES,

Of any required diameter and strength; made upon a  
New and Economical Plan, and fitted with

**PARRY'S PATENT**

### Anti-Friction Pivot Box.

— ALSO —

### TRANSFER AND DROP TABLES,

Suited for Locomotive and Repair Shops, Car Facto-  
ries, etc., etc.

### London Agency for Sale of Bonds &c.

Messrs LANCE & Co., are making more generally  
known in England, the great advantages of American  
securities for investment.

During the present year Messrs LANCE and Co. have  
disposed of a large amount of American and Canadian  
Railway Bonds, and are fast extending their connec-  
tions. They will be happy to correspond with parties  
having good American Securities for sale.

Messrs LANCE & Co. have had experience in the pur-  
chase and shipment of Iron, and offer their cooperation  
to those about to negotiate for the disposal of Bonds  
and the purchase of Rails.

P. S. Presidents of Railway Companies are requested  
to favor Messrs L. & Co. with Exhibits or Reports of  
their Companies as published.

10, Regent street, Waterloo Place, London,  
October 1855. NOV. 15-6m.

### LOCOMOTIVES FOR SALE.

OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY.

Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines,  
25 tons weight; 10 wheels, 6 drivers and truck  
Two of the Engines now ready for delivery, and four  
in the course of three months. Our Coal Burners are  
used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage)  
Pennsylvania Central; Manassas Gap & Orange & Al-  
exandria, Georges Creek Co.'s road, Central Ohio, and  
Ohio & Penna.; and for their durability and economy  
of repairs, and economy of fuel, we refer to the officers  
of the above roads.

Orders for freight or passenger engines deliverable or  
after the first of December, solicited.

Address, **THATCHER PERKINS,**  
Pres dent.  
Also, for sale, two Twenty Horse Power Stationary  
Engines. Aug. 9th

### Railroad Printing.

**WE** have now attached to this office an ex-  
tensive Composition and Press Room and  
Bindery, under the personal supervision of the  
proprietors of the RECORD. With confidence,  
therefore, we call the attention of RAILROAD OF-  
FICERS and others to our extensive establishment,  
containing every facility for turning out superior  
work in any and every department of the PRINT-  
ING BUSINESS.

We are fully prepared to furnish Railroad and  
other Reports, with or without Maps or other il-  
lustrations, gotten up at short notice and in supe-  
rior style. Also, Blanks of any description, adapted  
to the wants of the various departments of the  
Railroad service, and to the wishes and tastes of  
the parties.

Also, Railroad Tickets and Conductors' Checks  
Our patent Card Press, enables us to supply any  
demand at Short Notice and in Unequalled Style

Also, Blank Books, ruled to any pattern, with  
or without Printed Headings, and bound in the  
most substantial manner.

With the numerous facilities for doing the Best  
Work, we feel no hesitancy in promising full sat-  
isfaction to all who may favor us with their or-  
ders.

**T. WRIGHTSON & CO.,**  
Railroad Record Office, 167 Main St Cin



## PRINTING.

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,  
T. WRIGHTSON & CO.,**  
167 Walnut Street, Cin., O.

## RAILROAD IRON.

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. **WALKER & BERRY,** Quebec & Kingston, Canada. **BERRY & WALKER,** Liverpool, England. Kingston, C. W., Sept. 15, 1855.

## PERU &amp; INDIANAPOLIS R. R.

*Peru, Logansport, Wabash, Rochester, and Indianapolis.*

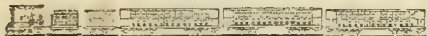
Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

**WILLIS W. WRIGHT,** Superintendent.  
L. N. ANDREWS, Gen. Frtght, Ag't.  
Indianapolis, October 1, 1855

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

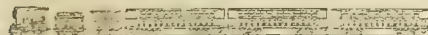
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m., and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

**A. G. CONOVER,** Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-11.

## Terre Haute &amp; Richmond R. R.



## Summer Arrangement.

**TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)**  
Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

**EXPRESS TRAIN** leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 24 hours. Fare \$10.40.

**MAIL TRAIN** leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

**TERRE HAUTE TO INDIANAPOLIS.**  
**MAIL TRAIN** leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

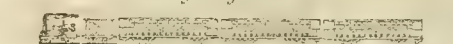
**EXPRESS TRAIN** leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.  
May 28, 1855 **S. HUESTIS** Superintendent.

1855 FALL ARRANGEMENTS. 1855  
FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.  
THE BEST AND QUICKEST RUN ROADS  
IN OHIO.

Time as short to the Eastern Cities, as well as  
to Chicago and St. Louis, and Fare as  
Low as by any other Routes.



## Great Miami, [C. H. &amp; D.]

MAD RIVER AND LAKE ERIE,  
CLEVELAND & TOLEDO,  
AND  
EATON & RICHMOND  
RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

## FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo, Chicago, and Cleveland—Same train connects at Dayton for Greenville, Union, &c., and at Forest for Lima, Delphos and Fort Wayne. This is the only direct route to the above places.

Passengers for the East take the cars of the Cleveland and Toledo road at Clyde, go into the same depot and make the same connections as by the Columbus route. As the Lake Shore roads depend more upon the trains from the West for their travel, and as this train makes sure connection at Clyde, passengers are less liable to miss the connection at Cleveland than by any other route.

(This train starts by Columbus time which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

## SECOND TRAIN.

Indianapolis Express, at 5 A. M., for Indianapolis, and all points North and West.

(This train also starts by Columbus time.)

## THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest and Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and at Sandusky, with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua, also to Greenville, Union, &c.

## FOURTH TRAIN.

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

## FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

## SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

**RETURNING**—Trains leave Dayton as follows: at 5.15 and 7.45 A. M., 5.45 and 7.25 P. M.

Trains leave Richmond at 7.00 and 10.30 A. M., and 6.40 P. M.

Trains leave Hamilton at 5.54, 6.40 and 9.00 A. M., and 2.50, 4.49 and 8.50 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

**H. O. AMES,** Sup't. C. H. & D. R. R.  
**E. F. OSBORN,** Sup't. M. R. & L. E. R. R.  
**E. B. PHILLIPS,** Sup't. C. & T. R. R.  
**D. M. MORROW,** Sup't. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## Railroad Iron,

**1,500 TONS,** now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by **VOSE, LIVINGSTON & CO.,** 9 South William street.  
New York, Aug. 16th, 1855.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,  
BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE, LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

**FIRST TRAIN**—Chicago Day Express—at 5.20 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

**SECOND TRAIN**—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

**THIRD TRAIN**—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50  
" Lafayette.....5 50  
" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to **W. A. LATHAM,** at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth street Depot.

**M. L. MITCHELL,** Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

**WM. H. SMITH,** Conductor.  
Feb. 8-5y **WmRROpeSute M NterODn i,pn**

## Myers' Patent Cylindrical Car.

**NOTICE.**—The Subscriber having become proprietor of **MYERS' PATENT CYLINDER CAR,** for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

**W. C. CLOUGH,**  
South-western Car Works.  
Madison, Indiana, May 11.

## GEO. D. WINCHELL &amp; BRO.,

172 E'm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action  
SUCTION & FORCE PUMP

AND

Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; we are adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

**SILVER MEDAL.** (The highest prize) awarded to these pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,

Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.

FOR FREIGHTS IN EITHER DIRECTION

The fullest accommodations are provided. In motive power and cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful handling of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads.**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericsson Steamers, by Canal, to Philadelphia and New York.

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

**TO LOUISVILLE****IN SIX HOURS.**

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M., and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 1.6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front Street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4, East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.

Omnibuses run from the principal hotels, and call on orders left at the Ticket Offices.

Omnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin., and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

**STEREOTYPE FOUNDRY,**

AND AGENCY OF

**L. JOHNSON & CO.'S TYPE FOUNDRY.**

C. F. O'DRISCOLL, (Successor to A. C. JAMES), is prepared to execute in the best manner all kinds of

**STEREOTYPING,**

including Books, Pamphlets, Music, and Jobs of every description. He will keep on hand an assortment of Card and Job Type, Cuts, Rules, &c. &c. from the foundry of L. JOHNSON & CO., of Philadelphia, and with furnish to order PRINTING MATERIALS OF VERY KIND.

AT THE FOUNDRY PRICES.

C. F. O'DRISCOLL,

188 1-2 Vine Street, Cincinnati, O.

1856. Winter Arrangement, 1856  
COMMENCING MONDAY, JAN. 7.

**LITTLE MIAMI RAILROAD,**

VIA COLUMBUS.

EXCLUSIVELY AN EASTERN ROUTE.

The Quickest—Shortest—Most Direct

Lightning Express through to Columbus, Crestline, and Cleveland, without change of cars, by any other route; passengers and baggage change cars.

The only route with three daily trains to Cleveland, Dunkirk, and Buffalo, by the uniform gauge and without transfers.

The only route with reliable connection to Pittsburgh. The only route to Wheeling and Steubenville.

BY 6 O'CLOCK A. M. TRAIN.

Wheeling Passengers Due at Zanesville.  
Pittsburg Passengers Due at Crestline.

Dunkirk and Buffalo Passengers Due at Cleveland, and on the following day in New York, Philadelphia, or Washington City. Breakfast at Baltimore.

Time via Little Miami Route from Cincinnati

|                    |             |
|--------------------|-------------|
| To Columbus in     | 2 1/2 hours |
| To Cleveland in    | 4 1/2 "     |
| To Dunkirk in      | 14 1/2 "    |
| To Buffalo in      | 16 "        |
| To Albany in       | 26 "        |
| To New York in     | 32 "        |
| To Boston in       | 35 "        |
| To Crestline in    | 6 "         |
| To Pittsburg in    | 14 "        |
| To Philadelphia in | 20 1/2 "    |
| To Wheeling in     | 10 "        |
| To Baltimore in    | 26 1/2 "    |
| To Washington in   | 29 "        |
| To Steubenville in | 12 "        |

Baggage checked from Cincinnati to Wheeling, Baltimore, Pittsburg, Cleveland, Dunkirk and Buffalo.

The Little Miami is the eastern Depot.

**FOUR DAILY TRAINS.**

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for all the Eastern cities.

ALSO: Springfield and Delaware; Circleville, Lancaster and Zanesville. Blanchester and Chillicothe.—This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Through to Columbus, Crestline and Cleveland without change of cars.

SECOND TRAIN.—Express Mail, leaves Cincinnati at 10 o'clock A. M., for all the Eastern cities. This train stops at all points between Cincinnati and Columbus.

THIRD TRAIN.—Accommodation, leaves Cincinnati at 3.30 o'clock P. M., for Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Springfield.

FOURTH TRAIN.—Cleveland, and Pittsburgh Night Express, leaves Cincinnati at 6 P. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office south-east corner of Broadway and Front streets, opposite Spencer House, or at the Eastern (Little Miami) Depot, East Front Street.

Office hours from 4 1/2 A. M. until 9 1/2 P. M.  
P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

H. B. RUGGLES, Conductor.

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

DWELLINGS, STORES, WAREHOUSES,  
and their contents.

STEAMBOATS, BARGES,  
and their Cargoes.

Manufacturing Establishments,

Railroad Depots and Station Houses,

at current rates.

L. A. OSTROM,

No. 6 West Third Street, Cincinnati.

**Covington and Lexington Railroad.**

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.  
Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terre Haute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at Lexington at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Catfish, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryant'sville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barboursville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.20 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

Freight Trains will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

**RATES OF FARE.**

|                         |        |
|-------------------------|--------|
| Covington to Louisville | \$4 00 |
| Covington to Lexington  | 3 00   |
| Covington to Paris      | 2 40   |
| Covington to Cynthiana  | 2 00   |

**FOR THROUGH TICKETS**

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent.  
The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw Madison and Scott, Covington.

**CLAYTON & GRANT.**

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road.  
nov. 15\*

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

VIA LAWRENCEBURG, IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at

4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 1.55 P. M., or second Train, the only close connection made, via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.  
Office, 31 Main Street, west side, 5 doors north of Madison House.

SIDNEY RICE, Agent.

**W. G. ATKINSON,**  
Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated  
Maps and Reports furnished; Researches made for  
Coal, Iron, Copper, Lead, or other Minerals,  
Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological plans prepared.  
mm11-1v

**RAILROAD IRON. LOCOMOTIVES.**

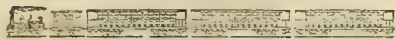
4,000 Tons rails, 56 to 61 lbs. per yard. 200 tons rails 48 lbs. per yard. 1,000 tons rails 55 lbs. per yard. Also: several Locomotives of best manufacture, from 20 to 26 tons weight, adapted to roads of four feet eight and one half inches gauge, for sale by  
H. H. GOODMAN & CO.,  
no. 7 Wall st., N. Y.

Jan 10, '56-2m.]



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE, KY.



THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

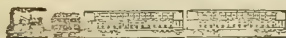
Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Lathes, Planes, Drills, Slotting, Splitting, and Snapping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

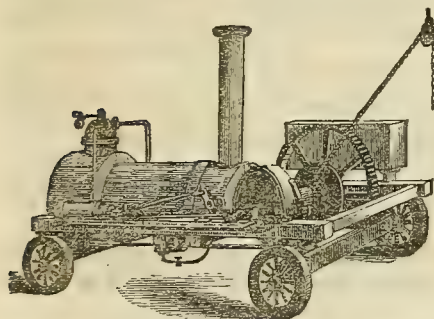
Communications or orders must be addressed to  
J. M. BROWN, OLMSTED, TENNIS & PECK,  
Louisville, Ky.

**Norris' Locomotive Works,**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**  
Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**A. L. ARCHAMBAULT'S  
PORTABLE STEAM****HOISTING & PUMPING  
ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT,  
S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

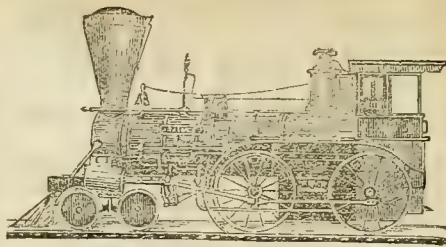
Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad Companies."

COMMITTEE—Messrs. DURAND, FULTON and TILTON.  
Manufactured by J. M. BROWN,  
At Knap's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.**

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

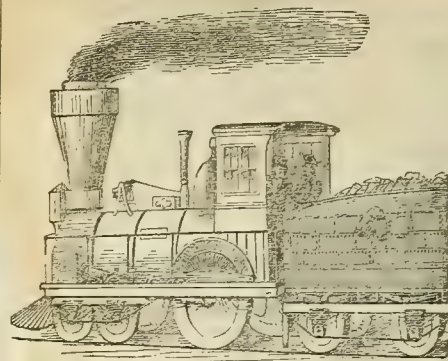
CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's, Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planes, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap.20 MOORE & RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T. & F. Wason, Springfield, Massachusetts.  
Feb 20

**Railroad Car Findings**

BRIDGES & BROTHER,

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Casting Fit Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**  
Of any required width to 124 inches.  
**ENAMELLED HEAD LININGS**  
Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

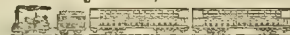
Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,  
Late Davenport & Bridges, Car Manufacturers,  
Cambridgeport, Mass.

ALFRED BRIDGES,  
Late Davenport, Bridges & Co., Fitchburg, Mass.  
Feb 20

**CAR MANUFACTORY,**  
Dayton, Ohio.

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

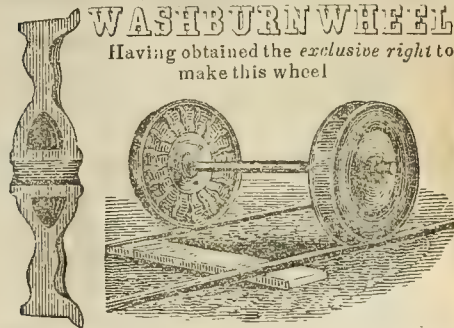
They also manufacture blacksmith tapers, Harris Patent; portable belt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.  
Dayton, Jan 24th. 1853. Jan 25-4



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

**BOLLMAN'S PATENT IRON & WOOD BRIDGE.**  
We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
atdft. Muskingum Works, Zanesville, O.

**J. DAVENPORT, . . . M. D. WELLMAN, . . . C. M. RUSSELL**  
**DAVENPORT, RUSSEL & CO.,**

**Railway Car Manufacturers,**  
**MASSILON, OHIO.**

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
Feb. 16/87 **JOSEPH DAVENPORT.**

### S. C. THOMSON & CO.,

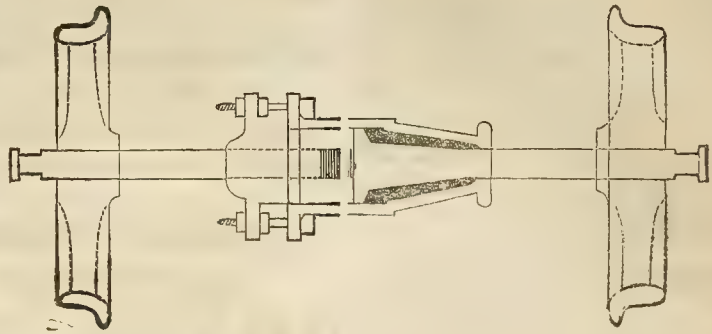
MANUFACTURERS OF

## PATENT PAD LOCKS,

For Railroad Switches, Merchandise Cars Stores, Cemeteries, Iron Safes, &c.,

**Cor. Railroad Avenue and Market st.,**  
**n.12] NEWARK, N. J.**

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty percent. in motive power on crooked roads: the rails are protected from being destroyed by the flanges of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels, than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

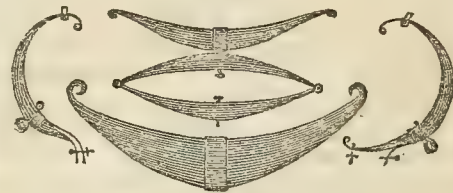
We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

## M<sup>C</sup>DANIEL & HORNER,

LOCO-  
MOTIVE



AND CAR  
SPRING

## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to  
**McDANIEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

**NORRIS BROTHERS,** Locomotive Builders, Philad.

**A. C. GRAY,** Prest. New Castle Manuf. Co.

**U. WELLS,** R. R. Car Manuf. Petersburg, Va.

**I. R. TRIMBLE,** Supt. Philad. R.R. Co.

May 19.

**M. B. MILLEN,** Gen. Supt. C. R. R. Savannah, Ga

**EMERSON FOOTE,** Supt. M. & W. R. R. Macon, Ga

**THOMAS DOUGHERTY,** Master Mach. do.

**THOS. SHARP,** Supt. R. F. & P. R. R. Richmond, Va

## MIDDLETON, WALLACE & CO.,

### LITHOGRAPHERS & ENGRAVERS,

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### REFERENCES.

**Richard Norris & Son,** Locomotive Builders, Philad'a

**Wm. D. Lewis,** Esq. Pres't Catawissa R. R. Co. "

**Charles H. Fisher,** Esq. " "

**Jao. Caldwell,** Esq. Pres't S.C.R.R. Co. Charleston, S.C

**Pinckney Huger,** Esq., Pres't. N.E. R. Co.

Oct. 13-15.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust or propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

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READ THE FOLLOWING CERTIFICATES.  
OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1853.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. FOSTER, Jr.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENNA. R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent.  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.  
There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARR, Esq.—Dear Sir:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in oiling a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

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## Prosser's Patent.

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Every article necessary to

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A. L. ACKERMAN, PROPRIETOR

Aug. 9 1y

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Also the new LUBRICATING APPARATUS, (Patent applied for 1855.) for oiling Valves and Cylinders and Throttle Valves of Steam Engines, Locomotives, Steam Pumps, &c. This Apparatus is Transparent, Self-Feeding, and not easily got out of order. It has a Glass Cylinder on the inside of a brass case, which holds the oil, and can be seen at any time when the oil is out. It will do either for Steam Vacuum or Journals. It is the best thing that could be made for Locomotives.

STEAM GAUGES on a new principle, manufactured and sold by

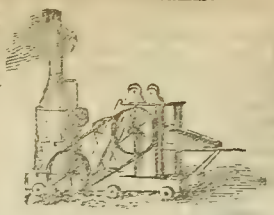
WILLIAM GEE,

Dec. 5, 1856-1y

68, Fulton Street, New York.

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Applications for Territorial Rights and Machines must be made to the Patentee.

nov17+

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### Important to Railroad Companies, etc.



### Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

### RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

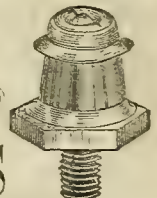
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

### RICHARDSON'S PATENT



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# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, { Associate Editors.  
T. WRIGHTSON, {

CINCINNATI:

THURSDAY MORNING,.....JANUARY 31, 1856.

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# Railroad Record

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## U. S. RAILROAD DIRECTORY, FOR 1856,

TO contain the names of the Presidents, Directors, and officers of every Railroad in the United States, as far as the same can be ascertained. Also, a general alphabetical list of the roads, and lists arranged according to States, showing their terminus and length. 1 vol. 8 vo. of about 2-4 pages. Price, one dollar.

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B. HOMANS,  
Box No. 4574, Post Office,  
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Jan. 31, 1855]

ALBERT M. LEA,  
CIVIL ENGINEER,  
KNOXVILLE, TENN.,  
1855

## London Agency for Sale of Bonds &c.

Messrs LANCE & Co., are making more generally known in England, the great advantages of American securities for investment.

During the present year Messrs LANCE & Co. have disposed of a large amount of American and Canadian Railway Bonds, and are fast extending their connections. They will be happy to correspond with parties having good American Securities for sale.

Messrs LANCE & Co. have had experience in the purchase and shipment of iron, and offer their cooperation to those about to negotiate for the disposal of Bonds and the purchase of Rails.

P. S. Presidents of Railway Companies are requested to favor Messrs L & Co. with Exhibits or Reports of their Companies as published.

10, Regent street, Waterloo Place, London,  
October 1855. Nov. 15-6m.

## TWENTY-NINTH ANNUAL REPORT OF THE BALTIMORE & OHIO RAILROAD COMPANY.

We have made it a custom, and shall do so, to review the annual reports of the great railroads leading to the West; partly to exhibit the operations of long lines of Railroads, and partly to show the development of Western trade. The reports of the Baltimore road are among the most interesting we receive. Especially is this the case since the opening of the Ohio Central Road.

The financial department is of interest, in showing what the intelligence and firmness of a city like Baltimore—has done for its wealth and commerce by contributing to a railroad.

The stock and cost account, of the Baltimore Road stands thus:

|                      |              |
|----------------------|--------------|
| Stock.....           | \$10,163,600 |
| Scrap.....           | 15,302       |
| Preferred Stock..... | 3,600,000    |
| Loans.....           | 9,491,508    |

|                       |              |
|-----------------------|--------------|
| Aggregate.....        | \$22,613,407 |
| Cost of the Road..... | \$22,760,205 |

Now, it is worth while to see what the city of Baltimore has done for this road:

|                              |             |
|------------------------------|-------------|
| City Stock.....              | \$3,500,000 |
| City Loan.....               | 3,400,000   |
| Individuals, (probably)..... | 2,100,000   |
|                              | \$9,000,000 |

Here we see that Baltimore has contributed *nine millions of dollars* to a single Railroad! This is four times as much as Cincinnati has contributed to all the roads and improvements about her; and yet Cincinnati is nearly as populous and rich as Baltimore.— This, however, aside, let us examine its Revenue:

|                            |             |
|----------------------------|-------------|
| Revenue.....               | \$3,711,453 |
| Expenses of operation..... | 2,110,363   |

|                            |              |
|----------------------------|--------------|
| Nett Revenue.....          | \$1,601,090  |
| Total cost of Road.....    | \$22,760,205 |
| Nett Revenue per cent..... | 7 per cent.  |

As the interest on the bonds is just seven per cent., the road has therefore paid just the same (7 per cent.) on its stock. After the long period of difficulties, drawbacks, and discouragements, which the Baltimore Road has met with, this result must be regarded as a triumph. In looking over the transactions of this road, we are struck with the enormous amount of *freight business*. Of the entire receipts of the company, only one-sixth part, viz: \$600,000, are derived from passengers; all the residue is from freight. If we analyze this again, we find that this enormous result is solely produced by *developing the natural resources* of the country; for which purpose, in fact, railroads are chiefly useful.— The two great sources of freight are coal mined in the mountains, and produce derived from the West. The coal, transported, amounts to 450,000 tons; or *nine millions two hundred and twenty-five thousand bushels*.— from this source the company received about \$1,200,000. The distance carried is about 200 miles; so that the company receives about 6 cents per bushel for 100 miles.

A great matter of interest to us, however,

is the amount of Western produce poured over this road to the East, and the immense amount of merchandise received in return. We give the following table of Western produce transported over this road, for the last three years, premising that the failure, (to a certain extent) of breadstuffs in 1854, caused a diminished export of them in 1855:

|                          | 1853      | 1854       | 18 5      |
|--------------------------|-----------|------------|-----------|
| Flour, bbls.....         | 666,604   | 709,495    | 573,320   |
| Tobacco, bbls.....       | 18 982    | 14,513     | 13,681    |
| Whisky, bbls.....        | 4,592     | 19,432     | 37,964    |
| Lard, lbs.....           | 2,200,000 | 18,000,000 | 9,000,000 |
| Pork and Bacon, lbs..... | 45,048    | 253,416    | 197,648   |
| Wool, lbs.....           | 226,000   | 396 000    | 1,358,000 |
| Lard Oil.....            | 350       | 13,952     | 10,296    |

The following is the amount of the leading articles of groceries and merchandise, transported Westward, on the Baltimore and Ohio Railroad, in the year ending the 1st of October 1855:

|                       |                 |
|-----------------------|-----------------|
| Coffee.....           | 15,215,616 lbs. |
| Sugar.....            | 6,161,721 “     |
| Fish.....             | 9, 01,851 “     |
| Oysters.....          | 1,194,211 “     |
| Dry Goods.....        | 7,152,909 “     |
| Guano and Manure..... | 9,451,588 “     |
| Plaster.....          | 6,069,910 “     |

The above amounts show what a great amount of foreign productions are now brought to the western country by railroad. Of the coffee, no less than *twelve millions of pounds* are brought to Wheeling; which is a supply sufficient for near three millions of people. The above statistics show, also, that about *six hundred thousand cans* of oysters are brought over the Baltimore Road.

We shall now notice the transportation of live stock, which forms a large item, in the business of the Road, and will make a larger one hereafter. The number carried on this road, in 1855, was:

|             |         |
|-------------|---------|
| Hogs.....   | 162 897 |
| Cattle..... | 12,847  |
| Sheep.....  | 35,284  |
| Horses..... | 2,517   |

A large part of these, especially of hogs, came from Ohio, and this will be much more the case, in future. The *increase* of live stock carried on this road has been at the rate of 30 per cent. per year.

To do the immense freight business of the Baltimore Road, there has to be employed a corresponding amount of machinery, and we think some people will be astonished to learn the immense number and weight of the locomotives and cars employed on such railroads as the Baltimore. The number is:

|                     |       |
|---------------------|-------|
| Locomotives.....    | 208   |
| Burden Cars.....    | 3,514 |
| Passenger Cars..... | 115   |

Here are nearly *four thousand* cars and locomotives; the cost of which must have exceeded three millions of dollars!

This immense equipment makes a large part of the expense of the long roads, and it is by not estimating properly, this branch of expenditure, and others connected with the running of railroads, that so many errors are made in estimating the cost of roads.

We close the notice with the remark that if few roads have met with so many difficulties, few have been so well managed or energetically directed.



### FALL OF A DEPOT ROOF.

We find, in the *Richmond Dispatch*, the following account of the fall of the depot roof at that place.

On Saturday evening last, between the hours of seven and eight o'clock, the entire roof of the large and elegant depot of the Richmond and Danville Railroad Company, in this city, gave way from the great weight of snow upon it, and falling in, crushed out the brick walls, making a complete wreck of the whole building. The depot was 225 feet long on the west side; 210 feet on the east side, and 132 feet wide, and being covered in by one roof, supported only by small iron rods, presented a wide surface for the falling snow, which had accumulated to a depth of several inches before the accident occurred. Fortunately no one was in the building at the time, and no lives were, therefore, lost. This depot was erected at a cost of \$25,000 to the company about two years since, and was one of the largest in the South. When the roof gave way the north gable end was thrown out with such force that the weight of the bricks burst through the south wall of Mr. Archibald Thomas' factory, injuring that house to the amount of several hundred dollars. It is impossible to estimate the loss to the company, and to the merchants and farmers who had freight in the depot, but we fear it will fall but little short of \$50,000, as there were in the building, at the time of the occurrence, some fifteen thousand bushels of wheat, besides hogsheads and cases of tobacco, lots of guano and merchandise of almost every character. There were also two or three freight cars crushed by the falling timbers, and one of them literally ground into fragments.

There are few buildings where a substantial and strong roof is of greater importance than railroad depots. And as such they have received considerable attention from architects, but as yet, we think, without that great improvement which their importance demands. The supporting rafters are usually, almost universally of wood and the covering of shingles. Now wood, to say the least, is a destructible material, liable to injury by decay and fire. Now an iron roof, while a little more costly in the first place, is in the long run cheaper, because more durable. But it is stated that a company owning the right to construct a Moseley Tubular Arched Roof, can build an iron one as cheaply as one of the better styles of wooden structure. Such a roof with metallic covering would be in reality indestructible. It could not be burned by fire and it would be strong enough to resist any weight that could be put upon it, the tubular form being stronger than any other form in which iron can be manufactured.

But another consideration. The walls of depots should be invariably built of Conkling's Improved Brick. These brick are as cheap as common brick, more uniform in shape and density, and more perfectly cemented by the mortar. Hence their superior adaptability to a building that should combine all the ele-

ments of strength and durability, as well as freedom from accident by fire.

### COPPER AND COPPER MINES OF TENNESSEE AND LAKE SUPERIOR.

It is a singular fact, that while the New York and Boston owners of copper mines, on Lake Superior, have been filling the world with their renown and bragging high; while, we say, this has been going on at the North, the copper mines of East Tennessee have been producing *threefold* as much copper!—We find, in the Lake papers, that the amount of copper produced on Lake Superior last year, and exported was about 4,800 tons, while that produced in East Tennessee was 14,191 tons. If, as we suppose the value of copper is \$400 per ton, then the copper product of these two regions, was in value thus:

|                                |             |
|--------------------------------|-------------|
| Tennessee, 14,191 tons.....    | \$5,676,000 |
| Lake Superior, 4,800 tons..... | 1,920,000   |
| Aggregate.....                 | \$7,596,000 |

Our imports of copper (deducting exports), amount to about \$3,000,000, of which two-thirds are from Chili; imported in pigs and ore. It would seem that there are no manufacturing establishments for copper in Chili, or we should not import it in the raw state.

As we now mine (in this country), two-thirds the copper we consume, as there are many new mines and the product constantly increasing, it is very obvious we shall soon export copper to Europe. In fact, copper will probably be the first *metal* in which we shall show a superiority over the rest of the world.

The copper mines of the United States are entirely inexhaustible, and some of them rich, beyond anything known in other countries. Mines were formerly worked, in New England, which are about to be revived. New mines are about to be worked, in New Mexico, about 100 miles from the Gila River, and near the line of the Great Pacific Road. But if there were no copper mines, except those of East Tennessee, and of Virginia and Carolina, adjoining, they would more than supply the United States.

N. B. Since we wrote the above item, it has occurred to us, that the Lake Superior copper ore, sent to the east, may be in a more pure state and thus account for the difference. We find that the copper ore sent out, by the Cliff mine, yielded 47 per cent; that by the Tennessee companies, about 24 (see *Mining Journal*, Feb., 1855), and at this rate, the difference would be thus:

|                               |                     |             |
|-------------------------------|---------------------|-------------|
| Lake Superior.....            | 5,000 tons produced | 2,350 tons. |
| Tennessee & Georgia, 14,000 " | "                   | 3,360 "     |

So that the amount of pure copper now mined, in the Tennessee region, is yet much greater than that on Lake Superior.

During the month of December the average loadings of freight at Wheeling, for Baltimore, has been fully 1,000 tons per day, of produce, besides live stock to the average amount of 110 tons per day.

### MISSISSIPPI & MISSOURI R. R.

The Mississippi and Missouri R. R. was formally opened by a grand excursion from Davenport to Iowa City on January 3d.

From the wide range of its connections and the growing importance of the State in which it is located, the opening of this road to this point was an interesting occasion.

The fete seems to have been highly enjoyed by those present.

### ALLEGHENY VALLEY R. R.

The officers of this road have our thanks for an invitation to participate in the festivities of the opening excursion of the first division of their road, on Tuesday last, Jan. 29. Nothing but the pressure of previous engagements prevented our accepting the invitation so politely extended. The excursionists have our best wishes for a good time.

The section now opened extends from Pittsburg to Kittanning, into a region hitherto without any railroad facilities. The whole road when completed will have the advantage of being a pioneer road without competition, in a country susceptible of great improvement.

### THE WESTERN ENTERPRISE.

The name of a new weekly paper, published at Chicago, by E. PORTER LITTLE. It is one of the best weekly papers we have ever seen; full of information, and illustrated by some very good wood cuts. We wish Mr. Little all possible success, in his ENTERPRISE, as we are quite sure he will deserve it.

### METEOROLOGY.

Various observers have been noting the the qualities of the weather, and the meteoric changes of the present severe season.—We hope they will be recorded, for the sake of comparison hereafter. We see by the Quincy (Ill.) *Patriot*, that, on the 9th inst. the thermometer was 28 deg. below zero; the coldest weather known to the oldest inhabitant."

### TEXAS WESTERN RAILROAD.

Col. E. A. Blanch, the Engineer of the Texas Western Railroad, writes to us from Marshall, Texas, that for some time past he has been constantly engaged in locating the line of the road from Marshall, Texas, to the Louisiana State line, that he has obtained a first rate route, with no grade above 35 feet to the mile, and no curve over 2 deg., or 2,845 feet radius. The cost of graduation will be about \$3,000 per mile. The feeling there is most favorable to the success of the enterprise. They have, on the work, one hundred and ten hands mostly negroes, furnished by planters on the line of the road, and will soon have a much larger force.



## PENNSYLVANIA CANALS.

We have received from Harrisburgh, an early copy of the Annual Report of the Canal Commissioner. It alludes to the fiscal year which terminated on the 30th of November last. The following is a synopsis of its material points:—

## RECEIPTS.—COLUMBIA RAILROAD.

|                    |              |            |
|--------------------|--------------|------------|
| Philadelphia,..... | \$454,817.25 |            |
| Paoli,.....        | 23,997.95    |            |
| Parkesburgh,.....  | 42,783.92    |            |
| Lancaster,.....    | 59,531.33    |            |
| Columbia,.....     | 275,929.39   |            |
|                    |              | 857,059.84 |

## PORTAGE RAILROAD.

|                    |             |           |
|--------------------|-------------|-----------|
| Holidaysburg,..... | \$12,868.17 |           |
| Johnstown,.....    | 5,281.92    |           |
|                    |             | 18,150.09 |

## MAIN LINE OF CANAL.

|                                         |             |            |
|-----------------------------------------|-------------|------------|
| Columbia, (including outlet lock,)..... | \$60,433.98 |            |
| Portsmouth,.....                        | 32,147.43   |            |
| Harrisburg,.....                        | 31,027.91   |            |
| Newport,.....                           | 5,465.44    |            |
| Lewistown,.....                         | 5,822.11    |            |
| Huntington,.....                        | 4,284.74    |            |
| Holidaysburg,.....                      | 32,742.37   |            |
| Johnstown,.....                         | 2,282.01    |            |
| Blairsville,.....                       | 3,338.73    |            |
| Freeport,.....                          | 2,792.60    |            |
| Pittsburg,.....                         | 53,929.90   |            |
| Out-let lock, Portsmouth,.....          | 1,416.91    |            |
| Duncan's island bridge,.....            | 1,021.78    |            |
| Juniata aqueduct,.....                  | 88.14       |            |
| Freeport aqueduct,.....                 | 213.72      |            |
|                                         |             | 243,007.77 |

## DELAWARE DIVISION.

|                |              |            |
|----------------|--------------|------------|
| Easton,.....   | \$348,292.46 |            |
| New Hope,..... | 14,749.75    |            |
| Bristol,.....  | 25,872.42    |            |
|                |              | 388,914.63 |

## WEST, LOWER NORTH BRANCH AND SUSQUEHANNA DIVISIONS.

|                      |             |            |
|----------------------|-------------|------------|
| Dunsburg,.....       | \$24,672.32 |            |
| Williamsburg,.....   | 41,801.82   |            |
| Northumberland,..... | 48,555.84   |            |
| Beach Haven,.....    | 232,612.47  |            |
| Liverpool,.....      | 58,346.82   |            |
|                      |             | 405,987.27 |

Total receipts, \$1,913,121.00

## EXPENSES.

|                                              |              |  |
|----------------------------------------------|--------------|--|
| Expenses of Columbia railroad,.....          | \$442,138.50 |  |
| Do Portage railroad,.....                    | 256,457.75   |  |
| Do Main line of Canal,.....                  | 217,236.60   |  |
| Do Susquehanna, North, & West Branches,..... | 114,496.87   |  |
| Do Delaware division,.....                   | 60,097.86    |  |

Total expenditures, \$1,090,427.58

Total receipts, 1,913,121.60

|                                                            |              |  |
|------------------------------------------------------------|--------------|--|
| Receipts over expenditures,.....                           | \$822,694.02 |  |
| Old tonnage tax on roads competing with public works,..... | \$196,935.76 |  |

Making the actual profits of the works over expenditures for 1855,.....\$1,019,629.78

## A RECAPITULATION.

From this abstract it will be seen that the receipts from the canals and railroads exceeded the expenditures, \$822,694.02. To which add the tonnage tax, \$196,935.76, and the operations of the year exhibit a clear profit over expenditures of \$1,019,629.78.

The gross receipts, exclusive of tonnage tax, for 1855, is \$37,042.72 over that of 1854; and the net revenue \$48,185.68.

Including the tonnage tax, the actual profits of the two years will appear from the following comparison:

|            |              |
|------------|--------------|
| 1854,..... | \$916,443.58 |
| 1855,..... | 1,019,629.78 |

Increase in 1855. over 1854,..... 103,186.20

## THE COLUMBIA ROAD.

The net earnings for the road for the year are thus stated in the report of the Superintendent:—"The profit over the working expenses and necessary yearly repairs are \$436,639.39, (\$8,880 less than the previous year,) equal to eight and three-quarter per cent on \$5,000,000; and the net revenue over all expenditures, excepting the re-construction of the south track is \$358,832.37, (being \$25,857.77 greater than last year,) equal to seven and one-sixth per cent on \$5,000,000."

## THE ALLEGHENY PORTAGE ROAD.

The Superintendent of the Allegheny Portage railroad reports an indebtedness in the motive-power department for 1855, of \$25,110.58; and in the repair department of \$7,766.75. The appropriation for motive power was \$203,358, and for repairs \$35,000; add to these appropriations the above indebtedness, and it shows an expenditure of \$228,468.58 for the former, and \$42,766.75 for the latter. While this is a reduction in the whole working expenses of the road the past year, as compared with 1854, of \$63,814.67, and is \$296,966 less than it cost in 1853, yet the Board are of the opinion that with strict economy in the administration in the affairs of the road, the appropriation would have been ample. In two items alone, the Board think there might have been a saving of an amount nearly equal to the reported indebtedness in the motive power department, viz: wood and oil. They have been led to this conclusion by a comparison of the cost of these two articles the past year with what they cost previous to 1850.

## THE MAIN LINE OF THE CANAL.

The Line was in good order throughout the year, but one break having occurred.

## THE LOWER JUNIATA DIVISION.

No breaches of any consequence occurred during the year.

## UPPER JUNIATA DIVISION.

There will be no extraordinary repairs required for 1856, and the appropriation needed will be less than the appropriation for 1855.

Expenses of line for 1855—\$42,900; breaches, \$309.75; bridges, \$500; lock-keepers; \$8,288.

## UPPER WESTERN DIVISION.

Expenses of line for 1855—repairs, \$16,343.42, including \$732.98 for breaches; road and farm bridges, \$1,074.97; lock-keepers, \$8,340.00.

## LOWER WESTERN DIVISIONS.

No extraordinary repairs were required during the fiscal year, except the completion of the rebuilding of the Freeport aqueduct, which was totally destroyed on the 26th of September, 1854. This structure was finished in time for the opening of navigation in the spring. Its total cost, agreeably to the final estimate of the engineer, was \$33,582.93.

## SUSQUEHANNA DIVISION.

This line was in excellent order during the year.

## WESTERN BRANCH DIVISION.

Navigation was opened on the second of April. A breach occurred on this line from a heavy rain, on the third of July, near Watson's run, which suspended transportation until the eighteenth of the same month. Another occurred in August at the Chillisquaque aqueduct, which detained the boats but a short time.

## LOWER NORTH BRANCH DIVISION.

Navigation was opened on the sixteenth of March. There were some slight interruptions from breeches and high water.

## DELAWARE DIVISION.

Net revenue for 1855, \$328,816; or equal to nearly 22 per cent. on the original cost of the line. The increase of the capacity of this Division is warmly urged.

"The attention of the Legislature is called to the fact that there is nothing at present to prevent boats from going over the dam crossing the river Lehigh, at Easton, and that point. The property destroyed last spring would pay double the cost of constructing two piers or cribs, to be sunk about one hundred and fifty feet apart, above the abutment of the dam, filled with stone and connected with sticks of timber chained together, so as to admit of their risking and falling with the water, and thus secure a safe entrance to the canal. The cost will not exceed two thousand dollars, which we respectfully ask to be appropriated as early in your session as possible, that boatman may be enabled to have the benefit of the improvement before the spring freshets."

## NEW ALLEGHENY PORTAGE RAILROAD.

The engineer on the new road for the avoidance of the inclined planes on the Allegheny Portage, reports that work so far completed as to admit the transportation of freight over it. He also reports that there is an indebtedness of one hundred and forty-five thousand four hundred and fifty-three dollars and sixty-six cents, and that to finish the arching of the tunnel, and some other items named, will require thirty-two thousand one hundred and twenty dollars more.

## GENERAL REMARKS.

The Board in their last annual report estimated the gross receipts on the public works for the year 1855, at twenty-two hundred thousand dollars. That estimate, as may be seen by reference to the report, was predicted upon the assumption that the Upper North Branch Canal would be completed in the early part of the summer of that year. Instead of this having been accomplished, however, it has not even yet been brought into use, and consequently the receipts are less than the amount that would have been collected on those ninety-five miles of canal.

## THE TONNAGE TAX.

It should be stated here, that the tax originally was five mills per ton during the navigable season of the canal, but afterwards modified to three mills for the whole year; thus demonstrating that the tax was agreed upon by the contracting parties as an equivalent for the injury the State would sustain by the construction of the road. The Legislature of 1855, however, took a different view of the subject, and in their liberality to the company, repealed the tax on coal and lumber. Without the remotest intention of reflecting on the action of that body, it is with great deference submitted that the practical workings of the repeal have been prejudicial to the revenue of the Commonwealth. The receipts from those two articles in 1854, amounting to about thirty thousand dollars. This would have been increased, the past year, to at least fifty thousand, had the tax remained.

But this is not the only loss the Treasury has sustained by its repeal. This tax operated as a protection, to that extent, to the transporters on the main line of the public works; and when that protection was withdrawn, they alleged that they could not carry



coal at all, and that they were therefore unable to bear up under the competition of the railroad, and they abandoned the business, and in July sold out their stock to their successful rival. It is proper to state that the Board, in their anxiety to retain the transporters on the State works, signified their willingness to make any reasonable reduction in the tolls which might be demanded for that purpose. In pursuance of this intimation, the transporters submitted a proposition which was regarded as inadmissible. The Board then proposed another conference on the subject, should those gentlemen desire it; but nothing further was done, and here ended the negotiations.

Thus has the State been deprived, not only of the revenue derived from the tonnage tax on coal and lumber, but also of the tolls which would have been received on those two articles, had they been carried over her own works by the transporters. The Board are not ignorant of the arguments which are urged in support of the repeal of this tax, as well on the two articles under consideration, as every other description of tonnage. It is said that this tax is a restriction on trade; that it retards the development of the great agricultural and mineral resources of the Commonwealth; that it cripples the energies of the company, and disqualifies them for entering into successful competition with rival improvements north and south of us, and that it compels the company to impose higher rates of charge on the local trade, &c., &c. While there is a degree of plausibility in these suggestions, yet it is believed that they are more specious than sound, when applied to the matter under discussion. So far as the public interests are concerned, all these objections to the continuance of the tax would be very easily obviated by the company itself, by simply curtailing their profits.

#### THE SALE OF THE MAIN LINE.

In regard to the future of the Main Line of the State improvements, the Board feel reluctant in making any specific recommendation. If the past year's experience be regarded as an index to the future, and the subject be viewed abstractly as a mere question of dollars and cents, there would not seem to be much encouragement. As has been stated already, the principal transporters abandoned the main line in July last. Should this state of things continue, it becomes apparent from a comparison of the receipts with the expenditures the past year, that on that portion of the line west of the Junction, the State would be largely the loser. But will this state of things be permanent? To arrive at a proper conclusion of this question, it will be necessary to look at the causes which produced it. The most prominent among these, (except the competition of the Pennsylvania Railroad, which has already been discussed,) is the uncertainty that has been felt among business men as to whether the State would retain the ownership of the line. Two successive Legislatures have passed bills for the sale of the main line; and although no sale has been effected, yet the constant agitation of the subject has deterred capitalists from embarking in a business involving the expenditure of thousands, which they had no guarantee might not be swept from them by the time they would get fairly into operation. Another cause has contributed no little toward producing the result referred to, was the old Portage road. In the active competition of the Pennsylvania Railroad Company, the detention incident to the inclined planes

on the old Portage, has operated as a serious drawback to the transporters on the canal. This obstruction being now removed, the change will be sensibly felt by those who may engage in the business of transportation the approaching season. The completion of the new road will very much facilitate the transit of freight.

The Board, as it has been constituted for the past three years, have not discussed the question of the sale of the main line. For the reasons which have governed them heretofore, they will refrain from doing so now; but they would most respectfully suggest that some definite action should be had, and, if possible, an end put to the suspense which has been hanging over the matter to the prejudice of the revenue for the past two or three years. If the ownership of the line is to remain in the Commonwealth, then policy would dictate that every effort should be exhausted to make it as productive as possible. To this end it has been suggested that the experiment be tried of holding out inducements to have it stocked. It is alleged that there are parties willing to do this, if the proper guarantee be held out. It is, therefore, submitted for the consideration of the Legislature, whether the passage of an act providing that if companies would put stock on this line, and the work should be sold within a given time, the parties purchasing it should be required to take the stock at a fair appraised valuation, might not be proper. While it is not perceived that such an act would, to any extent, embarrass the sale of the line, should the sale be subsequently determined upon, it is alleged that it would be such an inducement to business men as would secure the stocking of the line at once. This done, and proper care taken of the transporters on the canal, in the adjustment of the toll sheet, a new life would be infused into the business; a portion of the vast trade of the Ohio and Mississippi valleys, which is annually increasing and which must continue to increase for years to come, would be carried over the State's own improvements, and the tolls augmented in a corresponding ratio. Should the Legislature be disposed to adopt the policy indicated, it is suggested that, to make it available for the approaching spring business, action should be had at an early day.

#### THE CONTRACT.

The contract with Messrs. Bingham & Dock, for carrying passengers over the Philadelphia and Columbia railroad will expire in August next. As the Supreme Court have decided, in effect, that the Canal Commissioners have no legal right to enter into such a contract without the concurrence of the Legislature, the passenger travel, after that period, will be thrown open to every one who may think proper to place cars on the road. Whether the public revenues, or the comfort of passengers will be promoted by such an indiscriminate opening of the road, is very questionable. It is, therefore, submitted to the Legislature whether it is not expedient to clothe the Board with full power to make such arrangements for carrying passengers as will best conduce to an increase of revenue, and the safety and dispatch of travel.

METEOROLOGY.—The weather has continued, during the last week, its cold temperature, and the month closes, as the coldest probably in the memory of man.

#### THE COAL AND COPPER MINES OF TENNESSEE.

A correspondent of the Union and American, who is addressing a series of letters to the members of the Legislature, thus speaks of the eastern section of this State:

The copper fields of Tennessee lie in the Eastern Division, and were, but a few years ago, entirely unknown. Their exploration and development are yet in their incipient state. Nevertheless, there have been shipped this year from all the mines 14,291 tons. It is estimated by the able and experienced President of the Hiwassee Mining Company, Sam'l F. Tracy, of New York, that if they had a branch railroad from the mines to the East Tennessee and Georgia Railroad, that the different companies could have easily shipped 29,000 tons. The Hiwassee Company alone sold their ore and copper in New York for \$15,000, but the cost of transportation was \$65,000. Much of this enormous sum was paid for wagoning and freight on the Oconee river, and boxing, which might have been saved by the proper railroad facilities.—The copper ores of Tennessee are said to be exceedingly rich, averaging from 18 to 40 per cent., the general average being 18 per cent. The English ores are said to yield an average of 8 per cent; the Chili 20; the Cuban about 15 per cent. The world produces about 60,000,000 pounds of copper annually. Of this amount, in 1852, Great Britain and Ireland produced of ore and metal 28,820 pounds; Chili exports 18,000,000 pounds; and Cuba produces 8,000,000 pounds, which she sends to England for smelting, being destitute of fuel.

Had East Tennessee railroad facilities, she could mine and export next year 30,000 tons of copper, which, even yielding 12 per cent., would amount to \$1,000,000 if sold at the present prices in New York. Mr. Tracy calculates that if East Tennessee had railroad facilities commensurate with her ability to supply, such is the extensive and inexhaustible character of her copper fields, that she could produce one-eighth as much as the whole world. But render these mineral fields accessible to the plastic touch of commerce, and foreign capital, will pour in for their purchase and development. Population will increase; for villages and towns will spring up in your valleys, on the tops and sides of your mountains, and the solitude that is now inanimate will be made vocal with the music of the spindle, or echo with the ring of the anvil and hammer.

Gentlemen of the Legislature, assist East Tennessee, "poor East Tennessee," as she has been called, in the development of her vast agricultural, manufacturing and mineral wealth, and in a few years to come, instead of the poor pittance of \$40,000 that she now pays into the State Treasury as revenue, she will pour into the State coffers, and the laps of her citizens, wealth in golden streams or sparkling showers.—*Knoxville Register*.

OPENING OF THE MARIETTA RAILROAD.—On the 29th inst., the Cincinnati and Marietta railroad was opened to the Toleki coal mines, a distance of 140 miles from Cincinnati. The company were from this place, Chillicothe, Athens, and other places on the route. We understood they enjoyed themselves highly, and were well pleased with the road.



## STOCK TABLE.

CORRECTED WEEKLY.

GOVERNMENT SECURITIES.

|                                                              | INT. | DUE.    | OFF'D. | ASK'D  |  |
|--------------------------------------------------------------|------|---------|--------|--------|--|
| U. S. Loan.....                                              | 6    | 1856    | 102½   | 105    |  |
| Do .....                                                     | 6    | 1862    | 112    | 113    |  |
| Do .....                                                     | 6    | 1867    | 117½   | 120    |  |
| Do .....                                                     | 6    | 1868    | 116½   | 118    |  |
| Do Coupons.....                                              |      | 1862    |        | 118    |  |
| Do .....                                                     | 6    | 1867    |        | 118    |  |
| Do .....                                                     |      | 1853    |        | 101    |  |
| STATE.                                                       |      |         |        |        |  |
| Alabama.....                                                 | 5    | ....    |        |        |  |
| California.....                                              | 7    | 1870    | 84½    | 85     |  |
| Arkansas.....                                                | 6    | ....    |        | 96     |  |
| Georgia.....                                                 | 6    | ....    | 93     | 99     |  |
| Do .....                                                     | 7    | ....    |        |        |  |
| Illinois Canal Bonds.....                                    |      | 1860    |        |        |  |
| Do do registered.....                                        |      | 1860    |        |        |  |
| Do do .....                                                  |      | 1847    |        |        |  |
| Do do registered.....                                        |      | 1847    |        |        |  |
| Do do Internal Impt. 6                                       |      | 1847    | 105    | 106    |  |
| Do Interest do.....                                          |      | ....    | 72     | 75     |  |
| Indiana.....                                                 | 5    | ....    | 82     | 83     |  |
| Do .....                                                     | 2½   | ....    | 54     | 55     |  |
| Do Canal Loan.....                                           | 6    | ....    |        |        |  |
| Do do preferred.....                                         | 5    | ....    |        |        |  |
| Do special preferred.....                                    | 5    | ....    |        |        |  |
| Kentucky, 30 years.....                                      | 6    | 1871    | 102    |        |  |
| Do 16 years.....                                             | 6    | ....    | 102    |        |  |
| Do large bonds.....                                          | 6    | 1869-72 | 100½   |        |  |
| Do .....                                                     | 5    | ....    |        |        |  |
| Louisiana.....                                               | 6    | ....    | 93     | 95     |  |
| Michigan.....                                                | 6    | ....    | 97     | 98     |  |
| Missouri.....                                                | 6    | ....    | 85     | 86     |  |
| New York.....                                                | 6    | 1873    | 116½   | 117    |  |
| North Carolina.....                                          | 6    | ....    | 99     | 100    |  |
| Ohio.....                                                    | 6    | 1856    | 102    |        |  |
| Do .....                                                     | 6    | 1860    | 102½   | 106    |  |
| Do .....                                                     | 6    | 1870    | 107    | 110    |  |
| Do .....                                                     | 6    | 1875    | 110½   | 119    |  |
| Do .....                                                     | 5    | 1855    |        |        |  |
| Pennsylvania.....                                            | 6    | ....    |        |        |  |
| Do .....                                                     | 5    | 1870    |        | 89     |  |
| Tennessee, long loan.....                                    | 6    | 1890    | 90     | 93     |  |
| Do Coupons.....                                              | 5    | ....    | 81     | 83     |  |
| Virginia Coupons.....                                        | 6    | 1886    | 93½    | 95     |  |
| CITY SECURITIES.                                             |      |         |        |        |  |
| Albany.....                                                  | 6    | 1871-81 |        | 99½    |  |
| Allegheny.....                                               | 6    | 1875-7  |        | 80     |  |
| Baltimore.....                                               | 6    | 1870-90 | 100    | 100½   |  |
| Do .....                                                     | 5    | 1865    |        |        |  |
| Boston Bonds.....                                            | 4½   | 1860    |        |        |  |
| Chicago.....                                                 | 6    | 1873-7  | 92½    | 95     |  |
| Cleveland.....                                               | 6    | 1870    | 93½    | 105    |  |
| Cincinnati.....                                              | 6    | 1869-92 | 96     | 96½    |  |
| Do .....                                                     | 6    | 1897    |        |        |  |
| Do .....                                                     | 5    | 1884    |        |        |  |
| Do W. W.....                                                 | 6    | 1865    |        |        |  |
| Covington.....                                               | 6    | 1857    | 80     | 80     |  |
| Jeffersonville.....                                          | 6    | 1890    | 25     |        |  |
| Louisville.....                                              | 6    | 1880    | 86½    | 87     |  |
| Memphis.....                                                 | 6    | 1882    |        | 72½    |  |
| New York.....                                                | 7    | 1857    | 100½   |        |  |
| Do .....                                                     | 5    | 1858-00 | 95     | 99     |  |
| Do .....                                                     | 5    | 1870-5  | 97     | 100    |  |
| Do .....                                                     | 5    | 1890    |        |        |  |
| Philadelphia.....                                            | 6    | 1876-90 | 89     | 89½    |  |
| Pittsburgh.....                                              | 6    | 1869-78 | 81     | 82     |  |
| Do coupons.....                                              | 6    | 1883    |        |        |  |
| Racine.....                                                  | 7    | 1873    | 85     | 86     |  |
| St. Louis.....                                               | 6    | 1870    | 85     | 86     |  |
| Wheeling.....                                                | 6    | 1873    | 70     | 73     |  |
| COUNTY BONDS.                                                |      |         |        |        |  |
| Bourbon, Ky.....                                             | 6    | 1881    | 77½    | 80     |  |
| Darke, O.....                                                | 7    | ....    |        |        |  |
| Fairfield, O.....                                            | 7    | 1862    |        |        |  |
| Fayette, Ky.....                                             | 6    | 1881-3  | 75     | 75     |  |
| Hancock Co.....                                              | 7    | ....    | 70     | 76     |  |
| Mason, Ky.....                                               | 6    | 1881    | 73     | 76     |  |
| McCracken Co. Ky., endorsed by<br>New Orleans and Ohio R. R. |      |         |        |        |  |
| St. Louis.....                                               | 6    | 1866    | 80     | 85     |  |
| Do .....                                                     | 7    | 1871    |        |        |  |
| BANKS.                                                       |      |         |        |        |  |
| OHIO.                                                        |      |         |        |        |  |
| American Exchange Bank, N. Y.....                            |      |         | 118    |        |  |
| Ohio Life Insurance and Trust Co.....                        |      |         | 95½    | 100    |  |
| Washington Insurance Co.....                                 |      |         | 84     | 85     |  |
| City Insurance.....                                          |      |         | 70     |        |  |
| Cincinnati Insurance Co.....                                 |      |         | 84     |        |  |
| National Insurance.....                                      |      |         | 75     | 80     |  |
| KENTUCKY.                                                    |      |         |        |        |  |
| Bank of Kentucky and Branches.....                           |      |         |        |        |  |
| Northern, and Branches.....                                  |      |         | 100    |        |  |
| Southern, and Branches.....                                  |      |         |        |        |  |
| Bank of Louisville.....                                      |      |         | 93     |        |  |
| Kentucky Trust Co.....                                       |      |         |        |        |  |
| Farmers' Bank of Kentucky, ex. div.....                      |      |         | 102½   | 108    |  |
| Commercial Bank of Kentucky.....                             |      |         |        |        |  |
| INDIANA.                                                     |      |         |        |        |  |
| State Bank and Branches.....                                 |      |         |        |        |  |
| TENNESSEE.                                                   |      |         |        |        |  |
| State Bank and Branches.....                                 |      |         |        |        |  |
| Union.....                                                   |      |         |        |        |  |
| Planters.....                                                |      |         |        |        |  |
| LAND WARRANTS.                                               |      |         |        |        |  |
|                                                              |      |         | Buy'g  | Sell'g |  |
| 60 acre warrants, per acre.....                              |      |         | \$0 95 | 1 00   |  |
| 80 acre warrants.....                                        |      |         | 0 95   | 1 00   |  |
| 40 acre warrants.....                                        |      |         | 1 10   | 1 15   |  |
| 120 acre warrants.....                                       |      |         | 0 90   | 0 95   |  |



| RATES OF EXCHANGE. |            |       |        |           |
|--------------------|------------|-------|--------|-----------|
| Place.             | Time.      | Buy'r | Sell'r |           |
| On New York.....   | Sight..... | par   | 1/4    | 1/2 prem. |
| Boston.....        | Sight..... | par   | 1/4    | 1/2 prem. |
| Philadelphia.....  | Sight..... | par   | 1/4    | 1/2 prem. |
| Baltimore.....     | Sight..... | par   | 1/4    | 1/2 prem. |
| New Orleans.....   | Sight..... | par   | 1/4    | 1/2 prem. |
| England.....       | Sight..... | par   | 1/4    | 1/2 prem. |

| SPECIE.                      |         |   |         |  |
|------------------------------|---------|---|---------|--|
| GOLD.                        |         |   |         |  |
| California clean, \$ oz..... | \$17 60 | @ | \$17 65 |  |
| Spanish Doubloons.....       | 16 75   | @ | 16 75   |  |
| Patriot Doubloons.....       | 15 75   | @ | 15 80   |  |
| Sovereigns*.....             | 4 86    | @ | 4 88    |  |
| Guineas.....                 | 5 00    | @ | 5 00    |  |
| American, new.....           | 1 00    | @ | 1 00    |  |
| American, old.....           | 1 06    | @ | 1 06    |  |
| Portuguese.....              | 1 00    | @ | 1 00    |  |

| SILVER.                |          |   |          |  |
|------------------------|----------|---|----------|--|
| American Dollars.....  | 1 03 1/2 | @ | 1 04     |  |
| American Halves.....   | 1 03 1/2 | @ | 1 04 1/2 |  |
| Spanish Dollars.....   | 1 11     | @ | 1 14     |  |
| Spanish Quarters.....  | 1 00     | @ | 1 01     |  |
| Mex. coin Dollars..... | 1 05 1/2 | @ | 1 05 1/2 |  |
| Five Franc pieces..... | 97       | @ | 97 1/2   |  |

\*The standard English value attributed to the Sovereign is \$1.44, in London. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin.

### LONDON QUOTATIONS OF AMERICAN STOCKS AND BONDS. FROM THE WEEKLY PRICE CURRENT

| OF                                                   |     |   |     |  |
|------------------------------------------------------|-----|---|-----|--|
| E. F. SATTERTHWAITE, STOCK BROKER, LON.              |     |   |     |  |
| Dec 21, 1855.                                        |     |   |     |  |
| Belvidere, Del., guar. 1st mort., conv.....          | —   | @ | 87  |  |
| Chicago & Rock Island, Mort., conv. 1858.....        | —   | @ | 80  |  |
| Cin. Ham & Dayton, 2d mort.,.....                    | 84  | @ | 85  |  |
| Erie, 3d Mortgage, 1853.....                         | 81  | @ | 82  |  |
| " Sinking Fund.....                                  | 75  | @ | 77  |  |
| " conv. 1862.....                                    | 82  | @ | 87  |  |
| Grand Trunk (Canada) Debenture.....                  | 116 | @ | 120 |  |
| Great Western " conv.....                            | 104 | @ | 107 |  |
| " " non-conv.....                                    | 75  | @ | 76  |  |
| Illinois Central, 1st Mort., 7's.....                | 76  | @ | 77  |  |
| shares till Jan. 1858.....                           | —   | @ | —   |  |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill. Cent..... | —   | @ | —   |  |
| Little Miami 1st Mo. L. not conv. 6's.....           | —   | @ | —   |  |
| Marquette and Cincinnati, 1st Mort.....              | 93  | @ | 95  |  |
| Michigan Central, conv. 6's, 1860.....               | 94  | @ | 96  |  |
| do do do 1859.....                                   | 92  | @ | 94  |  |
| N.York Central, No Mort. Not conv. 6's.....          | 92  | @ | 94  |  |
| " conv. 7's.....                                     | 92  | @ | 94  |  |
| Ohio and Mississippi, 1st Mort.....                  | 75  | @ | 80  |  |
| Ohio and Pennsylvania, Income 1872.....              | 92  | @ | 94  |  |
| Panama. No mort. conv. 1866.....                     | 88  | @ | 89  |  |
| Pennsylvania, 1st Mort., conv.....                   | 88  | @ | 90  |  |
| " Sterling, 2d Mort.....                             | —   | @ | —   |  |
| Stenhouseville and Ind., 2d Mort.....                | —   | @ | —   |  |

The quotations given are sterling quotations. The American values to be obtained by adding on exchange generally about 10 per cent.

### CINCINNATI STOCK SALES, AT THE STOCK BOARD, MERCHANTS' EXCHANGE, AND AT PRIVATE SALE. BY HEWSON & HOLMES.

| BONDS.                                                                            |        |          |  |  |
|-----------------------------------------------------------------------------------|--------|----------|--|--|
| For the week ending January 30, 1856.                                             |        |          |  |  |
| \$3,000 Little Miami R. R. Co., 6 per cent.<br>30 ds. due in 1853.....            | 79     | and int. |  |  |
| 3,000 Ohio & Mississippi R. R. Co 7 per cent.<br>2d Mortgage Bonds.....           | 45     |          |  |  |
| 1,600 Indianapolis & Cin. R. R. Co., 7 per cent.<br>Dividend Bonds.....           | 61 1/2 |          |  |  |
| 7,000 Covington & Lex. R. R. Co., 7 per cent.<br>2d Mortgage Bonds.....           | 65     |          |  |  |
| 2,400 do do do.....                                                               | 90     |          |  |  |
| 1,600 Columbus & Xenia R. R. Co., Dividend Bonds.....                             | 88     |          |  |  |
| 1,155 Little Miami R. R. Co., Dividend Bonds.....                                 | 80     |          |  |  |
| 500 Little Miami R. R. Co. Dividend Bonds, new.....                               | 80     |          |  |  |
| 700 Columbus, Fiqua & Indiana R. R. Co., 7 per cent. Domestic Bonds due 1858..... | 14     |          |  |  |

| STOCKS.                          |        |  |  |  |
|----------------------------------|--------|--|--|--|
| 304 Shares Ohio & Miss R. R..... | 7 1/2  |  |  |  |
| 300 " do do.....                 | 8      |  |  |  |
| 200 " do do.....                 | 8 1/2  |  |  |  |
| 111 " do do.....                 | 9      |  |  |  |
| 500 " do do.....                 | 9 1/2  |  |  |  |
| 215 " do do.....                 | 10     |  |  |  |
| 13 " Columbus & Xenia.....       | 37     |  |  |  |
| 105 " Little Miami.....          | 50     |  |  |  |
| 17 " Covington & Lex.....        | 10 1/2 |  |  |  |
| 34 " do do.....                  | 13 1/2 |  |  |  |
| 23 " do do.....                  | 20     |  |  |  |

|                                   |       |
|-----------------------------------|-------|
| 50 " Indianapolis & Cin. R. R. Co | 60    |
| 100 " Mad River & Lake Erie.....  | 22    |
| 46 " Little Miami.....            | 30    |
| 25 " Ohio Central.....            | 30    |
| 200 " Dayton & Michigan.....      | 4 1/2 |
| 104 " Ohio & Miss.....            | 6     |
| 168 " do do.....                  | 6 1/2 |

### TEXAS Western Railroad Agency, Office 73 West Third st., Cin., O. SAMUEL A. SARGENT, AGENT.

IN answer to the numerous inquiries by letter and otherwise, as to how long the opportunity will be afforded for procuring the stock of the Company at the present limit of five per cent., and also to the inquiries for other and general information in relation to the Road and condition of the Company. I would state that there remains of the \$25,000,000 (gross amount) of Stock authorized to be issued at the five per cent. limit, less than \$8,000,000 unsold. That, in the event of its becoming necessary to issue more Stock than this amount, which will only be in case of an entire exhaustion of all the other means of the Company, and in that case it is not to be issued at any less assessment than fifty cents on the dollar, and this Stock to share equally only with the other in the dividends and profits of the road and lands.

The capital stock of the Company is divided into shares of one hundred dollars each, and each certificate contains the statement of the fact, that no further call or assessment over or beyond the five per cent. can or shall be made on the stock represented by the certificate. Certificates of stock are issued on the payment of two per cent., and the balance to make up the five per cent., is payable in installments of half of one per cent. each, on the first Mondays of July and January each year, until January, 1859. Those paying two-and-a-half, or the whole five per cent., are entitled to interest at seven per cent. on the actual amount paid until dividends are paid from the earnings of the Road, which will be made on the whole amount or face of the certificate of stock.

The Company have donated to them by the State of Texas, 10,240 acres of land per mile, for every mile of road built, to receive their first lands (256,000 acres.) immediately upon the completion of the first twenty-five miles, and afterwards as they proceed with the work every five miles, until the whole road through Texas to El Paso, 783 miles, is completed. The lands to be selected by the Company, along the line of the road, or anywhere within a breadth of 60 miles each side of the road. It is believed these lands will be more than sufficient for the building and equipping a first class Railroad through the State. And as the stockholder has an equal interest in the lands as well as the road, a large surplus may reasonably be expected from the sale of the surplus lands.

The grading of the entire road from a point twenty miles west of Shreveport, on the eastern line of Texas where it intersects the Vicksburg and Shreveport road to El Paso on the Rio Grande, 783 miles, is now under contract to responsible and efficient contractors. The work has already been commenced and now being vigorously prosecuted with a large force. This road is located on the line of the most direct and practicable route towards California, being near the latitude of 32 deg. The estimated cost of construction for a railroad on this latitude is ascertained from actual surveys and estimates, made by order of Congress, at great expense, and published by the Secretary of War in his late report, to be far less than any of the other five different routes to the Pacific.

And the estimate of Col. A. B. Gray, who recently surveyed this route, is less than \$25,000,000 from El Paso, 821 miles, to San Diego, one of the best harbors on the Pacific Ocean. The road on this route would be entirely free from any obstructions of ice or snow the whole year. With these superior advantages, it cannot be doubted that the Pacific Railroad, which has now become an acknowledged necessity for the country, will be constructed on this route, and at an early day. When it is considered that the thorough business required on this road when completed, must, from necessity, far exceed any other road in this country—that it passes through a fine agricultural and grazing country—unequaled in climate—that the Illinois Central road has been built under the same system of land grants as this, with only about 1/3 the quantity of land granted to our road—that the stock of their road is now selling at from 90 to 95 cents on the dollar—it is confidently believed the net profits to the stockholders of the Texas Western Railroad Company will largely exceed those of any other Railroad Company ever chartered in the United States.

I would further state that the stock is being disposed of rapidly, and those persons who contemplate securing it at the present rates, would do well to do so at once, as they may soon find they will be obliged to pay large advances on the Company's rates.

Pamphlets containing the charter of the Company and extracts from the report of the Secretary of War, upon the survey of five different routes to the Pacific, accompanied with a map, and also Col. A. B. Gray's report in full of the survey of the route, of 11,210,240 deg. can be procured by application at the office, Jan 21-1m

SAMUEL A. SARGENT.

### Earnings.

INDIANAPOLIS & CINCINNATI R. R.—The earnings of this road for Dec., 1855, are:

|                       |             |
|-----------------------|-------------|
| Passengers.....       | \$15,675 31 |
| Freight.....          | 31,849 15   |
| Mail and Express..... | 1,127 08    |

|                 |             |
|-----------------|-------------|
| Dec., 1854..... | \$14,651 54 |
|                 | 32,491 47   |

|                        |              |
|------------------------|--------------|
| Increase, 1855.....    | \$16,160 07  |
| 4th quarter, 1855..... | \$141,698 58 |
| 4th " 1854.....        | 104,398 21   |

|                              |             |
|------------------------------|-------------|
| 3 months increase, 1855..... | \$37,340 37 |
|------------------------------|-------------|

|                             |              |
|-----------------------------|--------------|
| July to December, 1855..... | \$242,308 10 |
| do. do. 1854.....           | 179,567 55   |

|                              |             |
|------------------------------|-------------|
| 6 months increase, 1855..... | \$62,651 55 |
|------------------------------|-------------|

|                           |              |
|---------------------------|--------------|
| January 1855 to 1856..... | \$418,652 14 |
| " 1854 to 1855.....       | 299,425 45   |

|                               |              |
|-------------------------------|--------------|
| 12 months increase, 1855..... | \$119,227 69 |
|-------------------------------|--------------|

### GREAT NORTHERN R. R. ROUTE TO THE PACIFIC.

LOWER CASCADES, COLUMBIA RIVER,  
WASHINGTON TERRITORY, NOV. 23d, 1855.

E. Gest, Esq., President of the Platte River Valley and South Pass Railroad Company—

SIR:—Nearly two years since, I did myself the honor of publishing in the *Railroad Record*, of Cincinnati, Ohio, a communication to your address, in which I took occasion to set forth some of the advantages of the mouth of the Columbia River, meriting the attention of your Company, as the Pacific terminus of the Continental Railroad. Since that time, my unavoidable detention in the mountainous regions of our country, prevented me from learning what was transpiring at home, or designed for execution abroad. As to the progress of the great work that is to distinguish this age and people as an epoch ever memorable in the annals of civic arts and the development of human genius, I know comparatively nothing, for that length of time, last past. Hoping, however, that the idea has been steadily fastening itself on the public mind, and twining its tendrils around the common interests of the American people, uniting them in a more tangible net work; which, like the spider's web, will extend from ocean to ocean—embracing in their association every interest, every class of people and every hope of national greatness; therefore, I beg, most respectfully to offer such other suggestions as may be of interest to your Company, or importance to a truthful development of the topographical features of the country.

The great valley of the Mississippi, that inexhaustible store house of vegetable production—the seat of modern empire—the garden of the continent, and Eden of the world, whose chequered surface marks great navigable water courses and interminable lines of railroad, furnishes the geographical center of the continent, and points to a central line of interoceanic communication. The railroad



*interests of the Atlantic Seaboard States are concentrating on this line. The Canadian railroads are also combining, approaching, and no doubt looking forward to a junction with this central line. The eastern terminus of the great Central Continental Railroad, is already designated by your Company, in the very centre of the inland commerce, and its course is directed towards the Pacific ocean.*

Commencing on the Missouri river, and following up the beautiful valley of the Platte, it passes through a prairie country abounding in game and the most luxuriant grasses, and approaches the ridges of the Rocky mountains at Fort Laramie. By continuing up the North Fork of Platte, the country becomes more broken, yet affording most excellent and abundant pasturage, and interposes no obstacles to the construction of a railroad, till we arrive at Mineral Point, where the river gorges through a canon of the western spur of Wind River mountains, and the wagon road leaves the river and passes over the mountain into the valley of Sweetwater.—To secure a uniform grade, as a matter of necessity, the railroad must pass through this canon, continuing along the river to its intersection with Sweetwater, thence up the Sweetwater to its source. (Here I beg to refer you to a rough diagram accompanying this communication.) Now, instead of continuing through the South Pass, I wish to direct the attention of your Company to the great CONTINENTAL PASS, a little north of the South Pass, and existing in that broken district of country lying between the southern spurs of the main chain of Wind River mountains, and the northern spurs of Bear river and the Wasatch ranges, and extending westward from the sources of Sweetwater, across the three branches of Green river to the sources of Portneuff river, thence down it, through a canon in the western spur of Wind River mountains, which also constitutes the southern rim of the great Columbian basin, to Snake river at Fort Hall. You will not fail to observe that the eastern spur of the Wind River mountains is the range through which North Platte gorges by a canon, whose declining ridges bear the name of "the Black Hills," and terminate at Fort Laramie. The country between this ridge and the western spur of Wind River mountains is broken into irregular ridges, as the position of Bear river, Portneuff, the three branches of Green river, and Sweetwater river conclusively demonstrate. From the Forks of Green river, where Fremont turned back in 1842, to the sources of Portneuff, cannot much exceed fifty miles in distance.

A bifurcation from the canon of Portneuff, may be continued through a succession of valleys, extending through the entire territory of Utah, terminating on the Pacific at San

Diego. A branch extending westward from Great Salt Lake City, would also pass over another district of country of gradual elevations and depressions, intersecting a succession of mud lakes in which Pitt river takes its rise, a tributary of the Sacramento, which opens up another highway to the ocean, terminating at San Francisco; but the great water grade of the continent, is immutably fixed and established along the Platte, the Continental Pass, and the Columbia river; the eastern slope of which boasts an average grade of  $3\frac{1}{2}$  feet, and the western slope 6 feet to the mile.

From Fort Hall, the valley of Snake river extends more than six hundred miles to the north, affording excellent and the most abundant pasturage; westward, and immediately opposite the fort, commences the great volcanic crater, and lava plain, the extent of which is over 100 miles east and west, by 60 north and south—the texture of whose scorified crust is about the consistency of pot metal and junk bottles, with little craters jutting out upon its surface, and whose succeeding waves hardened as they flowed, leaving their wave-like impressions as mementoes of the volcanic action that heaved forth the molten mass.

The three Butes are the remnant of a chain of mountains that must have been swallowed up or consumed in this mighty volcano; the upheaval of the molten masses forced its ashbeds to its extremest bounds, in which barren soil the artemisia and grease bush only flourish—a desert waste.

The great bend from which Snake river takes its name, forms the southern boundary to the great lava plain; from subsequent volcanic action, a rent or chasm has been produced in its southern rim, through which Snake river now flows, and in which the great Sho-Sho-Ne Falls are located.

A new road, recently opened from Fort Hall, trails along the northern edge of the lava plain, crossing the points of the spurs of Salmon River mountains, passes through numerous intervening valleys luxuriant with grass, and rich in gold and diamonds, uniting again with the old wagon road before reaching Boise river. This route offers every inducement to the construction of a railroad, from the fact that it passes through one of the richest mineral districts on the continent—the lava plain is a mass of iron, some of the mountains north are iron ore, some are granite, some gold bearing quartz, the wash from whose rugged slopes, has deposited the glittering "dust" with the rich, alluvial soil of the valleys, which also mingles with the diamond bearing ash-beds of this once active volcano.

From Fort Boise, the way becomes more rugged and interposes the most formidable obstacles on the route; the course of the river

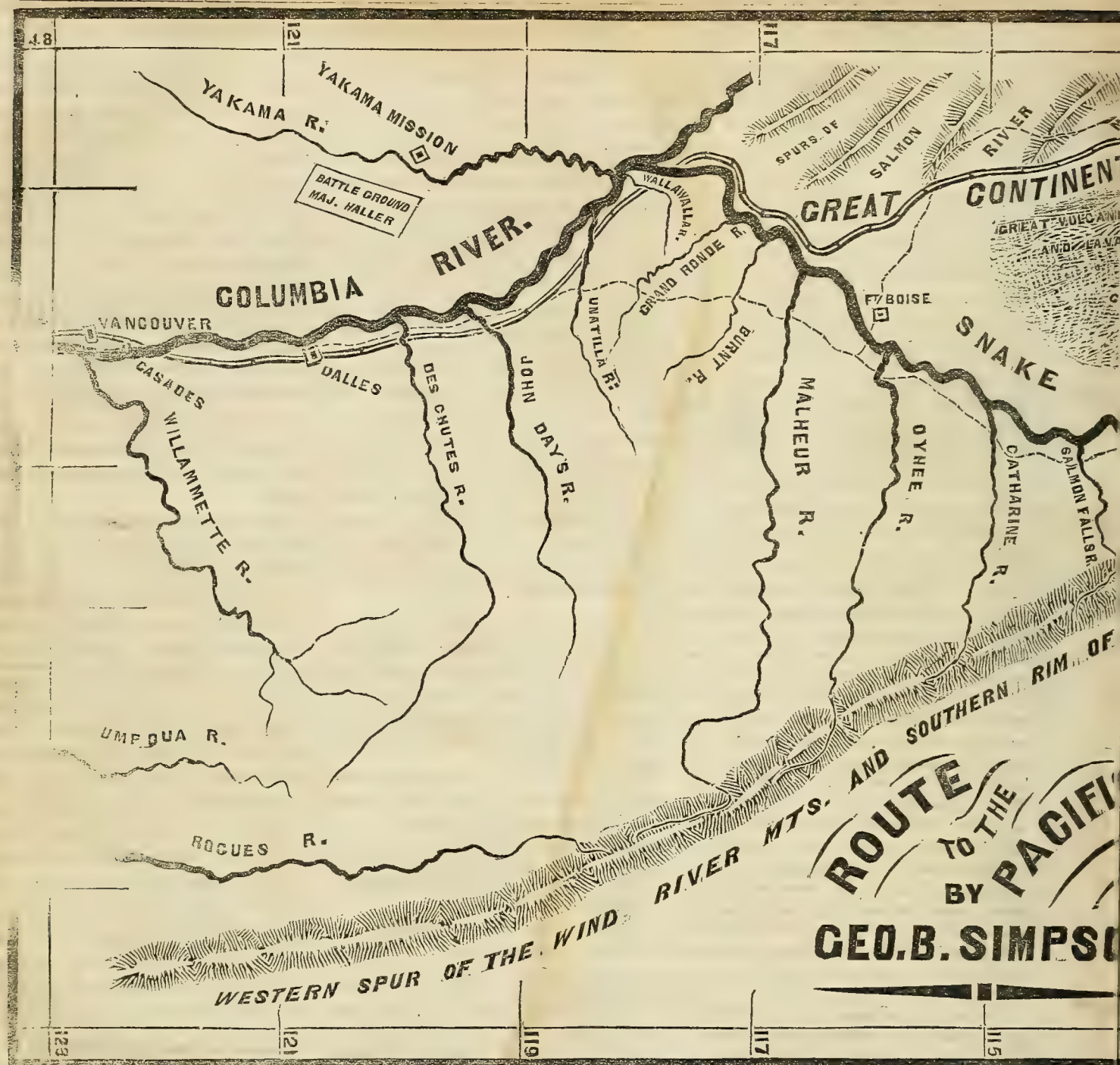
is nearly north, surging through succession of canons in Burnt river mountains, caused perhaps, by the same internal convulsion that produced the chasm in the southern rim of the lava plain; previous to which catastrophe, the whole interior basin of the Columbia must have been a vast inland sea. The Burnt River mountains are principally barren of timber, yet their surfaces are adorned with a luxuriant carpet of "Bunch grass," which always ripens and cures into hay on the stalk, of a rich golden hue, whose saccharine qualities equal, in nutriment, our oats in the straw. Entering the canons of Burnt River mountains, the scenery becomes surpassingly grand and picturesque, while they interpose no absolute barrier to a uniform water grade from ocean to ocean; debouching from the wild profusion of these mountain masses, the river and the road pass out into a valley of unequalled pasturage and fertility of soil, embracing in its area the waters of Lewis' Fork, Walla Walla, Umatilla and Columbia rivers.

There is no portion of the world, of which I have any knowledge, where nature has so lavishly poured out her stores for the sustenance of man and beast, as in these valleys; rich in fertility of soil, rich in mineral wealth; rich in fish and game, salubrious in climate, fortunate in all things. We are now on the banks of the Columbia river; a noble stream, bearing the name of a great and wonderful man a reference to whose bold and noble daring, carries us back to the dawn of civilization—the intellectual light that burst like a meteor on the waning gloom of the dark ages. Continuing along the Columbia to the Dalles, we arrive at the eastern slope of the Cascade mountains; here the river enters another mighty canon, offering the greatest facilities for the construction of a railroad, on either shore, and opens up the great highway to the ocean! These mountains are heavily timbered with pine, fir and cedar. The valleys are fertile and well adapted to agriculture, being interspersed with alternate districts of timber and prairie, well watered, affording ample hydraulic power. The entire body of the Columbia river, where I now am, may be appropriated to hydraulic purposes, which is also the case with the Willamette at Oregon city, and almost every other stream on the Pacific seaboard.

Continuing from the Cascades down the north bank of the river to Vancouver, thence to the mouth of the Columbia, with a bifurcation from the corolity to Olympia on Puget's Sound, and the great transit of the continent is accomplished! the European and the Oriental commerce is connected! its current changes and its tides ebb and flow.

We are now in that portion of the world, according to Humboldt, where the most prolific vegetable growth exists upon its surface;





According to the same author, in consequence of the semi-annual wind currents, which gently flow from the pole towards the equator during the summer season, and from the equator towards the pole during the winter season, there exists a difference in the mean temperature of the atmosphere of 14 deg. in summer, and 18 deg. 12 minutes in winter; this difference is in favor of the Pacific seaboard, and develops the astonishing truth, that from the same parallel of latitude, the mean temperature of the atmosphere on the Pacific coast, is carried 840 geographical miles to the north in summer, and 1092 geographical miles in winter! This is owing, perhaps, to the simple fact, that there exists

upon the planet four wind currents, two in each hemisphere, semi-annual in their course, which flow in a dense surface current from the pole towards the equator, where they become heated, rarify, ascend and flow back to either pole again; the changes of these monsoons are caused by the relative position of the planet to its primary. (This is an important truth for the consideration of aeronautists.)

Olympia, the seat of our territorial government, is situated at the southern extremity of a succession of inland harbors, the extent and capacity of which are not equaled in the world; they abound in fish of almost every variety, and will, some day, become the ac-

tive theatre of strife, in which the hardy sons of "old ocean" will vie with each other in a peaceful distribution of their watery wealth. Hard coal makes its appearance on the opposite bank of the Columbia river from where I now write, is more abundant at Puget's Sound and on Vancouver's Island, and, no doubt its deposits abound throughout the whole extent of the northwest coast. Interminable forests of fir, cedar and pine skirt all these waters, affording lumber, spars, and ship timber of the finest quality and greatest abundance as articles of export. Gold, silver, copper, lead, iron, coal, all abound in various localities, and in the Russian Possessions, copper is so abundant, that it induces the opinion that it may





extend diagonally across the continent, developing itself on the northern shore of Lake Superior, with traces on the Atlantic seaboard in Connecticut.

The whale fisheries of the Pacific ocean and the China seas, has ever attracted the capital and attention of commercial men, and will in the future, engage a vast amount of American capital and American shipping, whose enterprising sons will draw forth the untold treasures of the mighty deep.

But what are all the advantages I have enumerated, in a national point of view, to the blessings flowing immediately from the highway itself! A new world of hope, of interest, of commerce, of wealth, of glory, is

opened up to the enterprise of American citizens—the Oriental commerce pours the collected treasure of a thousand ages into the bosom of the great Republic, while the garden of the continent and the Eden of the world send forth the rich products of its prolific soil to feed the pauper millions of the East; the wooden cross of Paganism bows in reverence to the Eagle and the Banner, and the gloom of ignorance and superstition is swept away by the rising splendor of the intellectual sun of Liberty.

We justly venerate the fathers and founders of the Republic, but how much more will future generations venerate those who are instrumental in accomplishing this great

good! Would to God, that every American heart was lighted with the fire of our forefathers—the fire of patriotism that kindled the revolution—then would their motto be, the Continental Railroad—the Highway of Nations—the European and the Oriental Commerce! Then, indeed, might we all exclaim with the French tourist, as he ascended the summit of the Allegheny mountains and looked over into the great valley of the Mississippi, after a moment of breathless and bewildered suspense, “Attention, the Universe! Nations, about face!! Behold the seat of Empire!!!”

Your obedient servant,

GEO. B. SIMPSON.









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F. W. FEE, F. GOODMAN.

# FEE, GOODMAN & CO.,

MANUFACTURERS OF

# NON-GELATINOUS OILS,

For Locomotive Head Lights, Machinery, &c.  
CORNER OF 3d St. & MIAMI CANAL,  
CINCINNATI, OHIO.

THE great progress made in the improvement and extension of Railroads, Steamboats, Machinery &c., has made the subject of Oils one of great importance. For several years it has claimed the attention of scientific men to investigate and experiment upon the various kinds of Vegetable and Animal Oils, in order both to supply the want of, and supersede the best article now in use, which is *Sperm Oil*, but hitherto it has been without success. We have at length, by a process discovered by ourselves, succeeded in removing the Glutinous matter from all kinds of Oils, which has been the great desideratum to be obtained, and now have made extensive preparations for the manufacture of

# COTTONSEED OIL.

This Oil is equal to, and much less expensive than Sperm; and will remain fluid at as low a temperature, and give as bright, white, and pure light, as any other pure burning Oil now in use.

We are also manufacturing a NON-GELATINOUS LOCOMOTIVE LUBRICATING OIL, which is pronounced by all who have used it, to be superior to any other. It is not only superior, but is cheaper, and has none of those injurious qualities, which eat and destroy machinery as the Combination Oils now in use are liable to do.

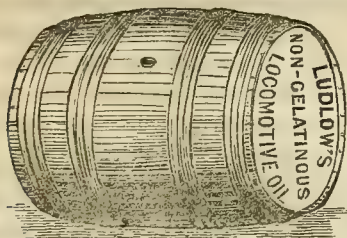
This oil is perfectly pure and non-gelatinous, and will not gum nor chill in any climate, and will wear as long as the more costly.

All we ask is, give our Oils a fair trial. We guarantee them to be such as we represent. We refer to the different railroads and printing Offices of this city, for their success.

Cincinnati, Jan. 31, 1855.

# W. D. LUDLOW'S

COMPOUND, NON-GELATINOUS LOCOMOTIVE



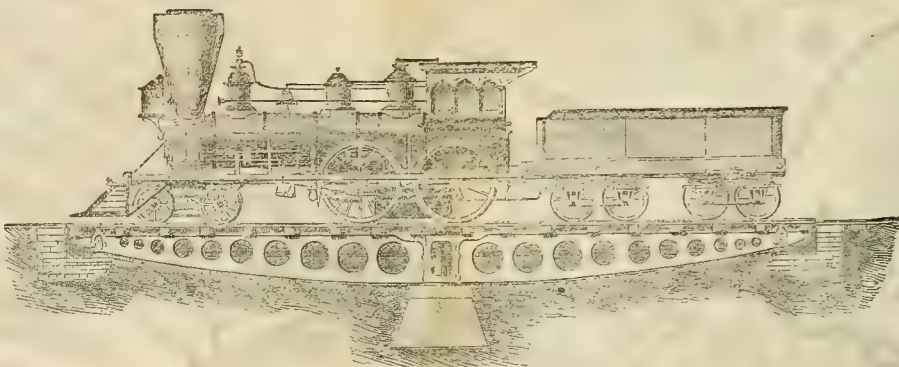
# LUBRICATING OIL.

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# William Sellers & Co.

—LATE—  
BANCROFT & SELLERS,



16th Street and Pennsylvania Avenue, Philadelphia,

MANUFACTURE RAILWAY, TURNING and SLIDING TABLES, and PIVOT BRIDGES, upon a new and economical plan and of any required length. The Turning Tables and Pivot Bridges are fitted with Parry's Anti-Friction Box—thus enabling one man without the intervention of gearing to turn the largest table when loaded with Engine and Tender. Being of iron they are not liable to get out of order, and water within 18 inches of the track, will not impair their efficiency or durability.

ALSO:

BANCROFT'S PATENT SELF-ADJUSTING HANGER and PILLOW BLOCK BEARINGS suitable for all kinds of Shafting or Mill gearing. A large supply of this article kept constantly on hand, arranged so as to attach to upright posts, suspended to the under side of beams, to rest upon foundations, or adapted especially to counter-shafts for tools, or other machinery. Cast Iron Grindstone Boxes, fitted with this bearing and resting on wheels for convenience of moving, also kept constantly on hand. Having probably the largest stock of Pulley Patterns, in the country, they are prepared to furnish castings or finished pulleys at short notice, as, also, shafting, couplings, gear wheels, &c., suitable for all manufacturing purposes fitted up ready for use.

They also continue the manufacture of their well-known class of *Engineers and Machinists' Tools*; such as Horizontal Planing machines, Vertical Planing machines, Lathes, Boring and Turning mills, Boring mills, Horizontal drills, Vertical drills, Bolt Cutting machines, &c.

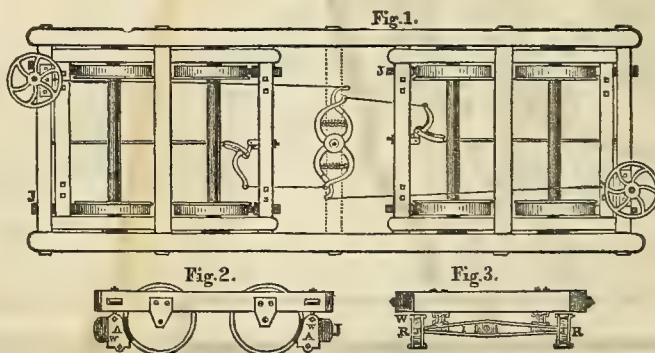
WILLIAM SELLERS,

JOHN SELLERS, JR,

# L. PAIGE'S

# IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (1) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviating all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

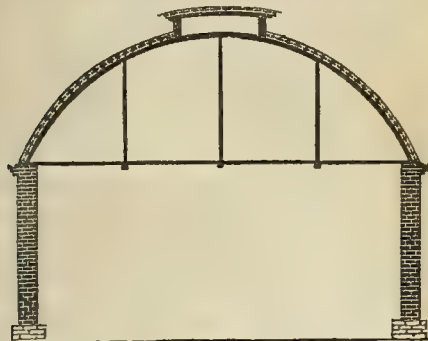
Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire, Hudson River & Harlem Railroads.



## MOSELEY'S Tubular Wrought Iron ARCH ROOFS.



OFFICE, NO. 57, WEST THIRD ST.  
CINCINNATI, OHIO.

The supporting parts of these roofs are made in the same manner as Moseley's

### TUBULAR BRIDGING.

The tubes are light and of immense strength, capable of bearing twenty times more burden than will ever go upon them. Such roofs can be built in less than half the time, weigh much less and cost less than any plan of Iron Supporting now in use, and no more than good wooden Trusses; besides, this plan of roofing gives a fine architectural appearance, is all iron, and proof against injury to walls, etc., by expansion and contraction. We are prepared to manufacture roofing, after this plan of any size and span, in any and all parts of the country, on the shortest notice.

MOSELEY, WINSTON & MOSELEY.

THOS. W. H. MOSELEY,

Sup. and Engineer.

JOHN BARNES & CO

Special Contractors

January 1st., 1856



**T. N. RAFFINGTON,**  
GENERAL ENGRAVER,

North East Corner Fourth and Walnut Streets, over  
Ohio Savings Bank,

CINCINNATI.

**BANK NOTE ENGRAVING.**  
DANFORTH, WRIGHT & Co.,  
No. 25 West Third Street, Cincinnati.

Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

BANK NOTE

ENGRAVERS AND PRINTERS.

Also, engraved in a style corresponding in excellence  
with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**

BILLS OF EXCHANGE, CHECKS,

Drafts, Certificates of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order  
of a superior quality.

The above office is under the supervision of

GEORGE T. JONES,

South-East corner of Main and Fourth Sts., Cin.

**D. D. MILLER,**

Manufacturer of

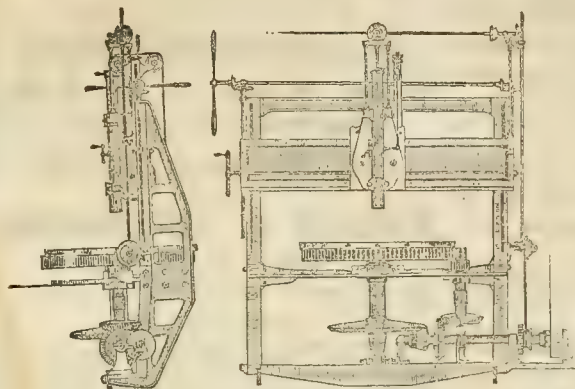
**LOCOMOTIVE, RAILROAD AND HAND  
LANTERNS,**

190 Water Street New York.

## NILES' WORKS.

### FOUNDERS AND MACHINISTS,

EAST FRONT STREET, CINCINNATI,



Manufacturers of

### TYRE LATHES,

of the most approved plan.

HORIZONTAL

### FACE PLATE LATHES,

OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

### PLANING MACHINES

LARGE & SMALL.

## MARINE & STATIONARY ENGINES.

BOILERS OF EVERY DESCRIPTION.

## HEAVY FORGINGS,

IRON AND BRASS CASTINGS, &C., &C.

## ALBERT M. SMITH'S PATENT PREMIUM RECLINING & SELF-ADJUSTING CAR SEAT



For a Night and Day High or  
Low-back Seat, combined in one,

PATENTED AUGUST 21, 1855.

It was awarded two first premiums, a Gold Medal, at the great Fair at the "American Institute," held at N. York, and a Diploma at the State Fair, held at Elmira, N. Y., 1855.

This valuable improvement is adapted and can be applied at a very trifling expense, to the ordinary seat now in use, without impairing its present qualifications as a day seat, and a new seat provided with it, and made in single seats, costs no more than the ordinary seat.

By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects

the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other.

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of **ALBERT M. SMITH, Patentee and Manufacturer,** dec20-ly '13 North St. Paul st., Rochester, N. Y., or **TAULMAN & LOW, 157 Broadway, N. Y.**

Cincinnati, Hamilton, & Dayton R. R.

SECRETARY'S OFFICE, CINCINNATI,  
December 1st, 1855.

At a Meeting of the Board of Directors of this Company, held this day, a dividend of 5 per cent. on Stock, was declared out of the net earnings of the road to October 1st, 1855, payable to the Stockholders registered in Cincinnati, on and after the 10th inst., and to those registered in New York on and after the 15th inst., fractional parts to be paid in cash, at the rate of eighty cents on the dollar, at the option of the Stockholders. The Transfer Books will be closed for ten days from this date.

Dec. 6-1m

FRANKS. BOND, Secretary.

## IRON BOILER FLUES. PASCAL IRON WORKS.

### MORRIS, TASKER & CO.,

Manufacturers of  
**LAP-WELDED BOILER FLUES,**  
1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**  
From ¾ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.



## PRINTING.

RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC., printed neatly and with dispatch, at the

R. R. RECORD PRINTING OFFICE,  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

## RAILROAD IRON.

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired. WALKER & BERRY, Quebec & Kingston, Canada. BERRY & WALKER, Liverpool, England. Kingston, C. W., Sept. 15, 1855.

## PERU &amp; INDIANAPOLIS R. R.

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers. Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Frtght. Ag't.  
Indianapolis, October 1, 1855

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1853, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

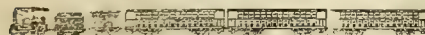
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1853. Sept. 29-11.

## Terre Haute &amp; Richmond R. R.



## Summer Arrangement.

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)  
Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.  
MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1853 H. HUESTIS Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

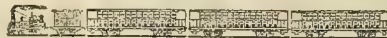
FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS  
IN OHIO.

Time as short to the Eastern Cities, as well as  
to Chicago and St. Louis, and Fare as  
Low as by any other Routes.



## Great Miami, [C. H. &amp; D.]

MAD RIVER AND LAKE ERIE,

CLEVELAND &amp; TOLEDO,

AND

EATON & RICHMOND  
RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

## FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo, Chicago, and Cleveland—Same train connects at Dayton for Greenville, Union, &c., and at Forest for Lima, Delphos and Fort Wayne. This is the only direct route to the above places.

Passengers for the East take the cars of the Cleveland and Toledo road at Clyde, go into the same depot and make the same connections as by the Columbus route. As the Lake Shore roads depends more upon the trains from the West for their travel, and as this train makes sure connection at Clyde, passengers are less liable to miss the connection at Cleveland than by any other route.

(This train starts by Columbus time which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

## SECOND TRAIN.

Indianapolis Express, at 5 A. M., for Indianapolis, and all points North and West.

(This train also starts by Columbus time.)

## THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest and Bellefontaine for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua, also to Greenville, Union, &c.

## FOURTH TRAIN

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

## FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

## SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

RETURNING.—Trains leave Dayton as follows: at 5.15 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M., and 6.40 P. M.

TRAINS LEAVE HAMILTON at 5.54, 6.40 and 9.00 A. M., and 2.50, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Supt. C. H. & D. R. R.  
E. F. OSBORN, Supt. M. & L. E. R. R.  
E. B. PHILLIPS, Supt. C. & T. R. R.  
D. M. MORROW, Supt. L. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m

New York, Aug. 16th, 1855.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena &amp; Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in..... 15 HOURS.  
TO ST. LOUIS, in..... 21 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,  
LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50  
" Lafayette..... 5 50  
" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.  
The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM H. SMITH, Conductor.  
feb. 8-ly WnRROpeSute M NterODn 1pn

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,

Madison, Indiana. May 11.

## GEO. D. WINCHELL &amp; BRO.,

172 Elm Street, between 4th &amp; 5th,

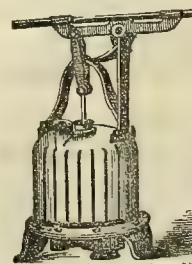
CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION &amp; FORCE PUMP

AND

## Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—17



## Baltimore &amp; Ohio Railroad.



380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellare on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

FOR FREIGHTS IN EITHER DIRECTION

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

Philadelphia and New York Railroads,

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miners' Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York,

And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

W. M. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 84 Baltimore.

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 10 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front Street, or at the Station on West Front, near foot of Columbia Street.

FOR TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,  
Chief Engineer and Superintendent.

Omnibuses run from the principal hotels, and call on orders left at the Ticket Offices.

Omnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

## LOCOMOTIVES FOR SALE.

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

Alexandria, Va.

FOR SALE.—Six Coal Burning Freight Engines, 25 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

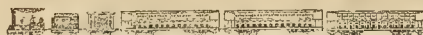
Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, THATCHER PERKINS,  
President.

Also, for sale, two Twenty Horse Power Stationary Engines.

Aug. 31

1856. er Arrangement, 1856  
COMMENCING MONDAY, JAN. 7.



## LITTLE MIAMI RAILROAD,

VIA COLUMBUS.

EXCLUSIVELY AN EASTERN ROUTE.

The Quickest—Shortest—Most Direct

Lightning Express through to Columbus, Crestline, and Cleveland, without change of cars. By any other route passengers and baggage change cars.

The only route with three daily trains to Cleveland, Dunkirk, and Buffalo, by the uniform gauge and without ferries.

The only route with reliable connection to Pittsburgh. The only route to Wheeling and Steubenville.

HY 6 O'CLOCK A. M. TRAIN.

Wheeling Passengers Dine at Zanesville.

Pittsburgh Passengers Dine at Crestline.

Dunkirk and Buffalo Passengers Dine at Cleveland, and dine the following day in New York, Philadelphia, or Washington City. Breakfast at Baltimore.

| Time via Little Miami Route | in | minutes |
|-----------------------------|----|---------|
| To Columbus in.....         | 3  | hours   |
| To Cleveland in.....        | 8  | 1/2 "   |
| To Dunkirk in.....          | 14 | 1/2 "   |
| To Buffalo in.....          | 16 | " "     |
| To Albany in.....           | 26 | " "     |
| To New York in.....         | 32 | " "     |
| To Boston in.....           | 35 | " "     |
| To Crestline in.....        | 6  | " "     |
| To Pittsburgh in.....       | 14 | " "     |
| To Philadelphia in.....     | 30 | 3/4 "   |
| To Wheeling in.....         | 10 | " "     |
| To Baltimore in.....        | 26 | 1/2 "   |
| To Washington in.....       | 29 | " "     |
| To Steubenville in.....     | 12 | " "     |

Baggage checked from Cincinnati to Wheeling, Baltimore, Pittsburgh, Cleveland, Dunkirk and Buffalo. The Little Miami is the eastern Depot.

FOUR DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for all the Eastern cities.

ALSO: Springfield and Delaware; Circleville, Lancaster and Zanesville, Blanchester and Chillicothe. This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Through to Columbus, Crestline and Cleveland without change of cars.

SECOND TRAIN.—Express Mail, leaves Cincinnati at 10 o'clock A. M., for all the Eastern cities. This train stops at all points between Cincinnati and Columbus.

THIRD TRAIN.—Accommodation, leaves Cincinnati at 3.30 o'clock P. M., for Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Springfield.

FOURTH TRAIN.—Cleveland, and Pittsburgh Night Express, leaves Cincinnati at 6 P. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

### THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building; ALEX. HAMILTON, Ticket Agent; or at the Old Office south-east corner of Broadway and Front streets, opposite Spencer House, or at the Eastern (Little Miami Depot, East Front street.

Office hours from 4 1/2 A. M. until 9 1/2 P. M.

P. W. STRADER, General Agent

### THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

Jenils.

H. B. RUGGLES, Conductor.

### Insurance Agency.

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

DWELLINGS, STORES, WAREHOUSES,

and their contents,

STEAMBOATS, BARGES,

and their Cargos.

Manufacturing Establishments,

Railroad Depots and Station Houses,

at current rates.

L. A. OSTRON,

vg. 16.

No. 6 West Third Street, Cincinnati.

## Covington and Lexington Railroad.

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terre Haute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

The EXPRESS TRAIN leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at Lexington at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with stage lines to Nicholasville, Bryantsville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

The ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.30 A. M.

Returning, leaves Covington at 9.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

FREIGHT TRAINS will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

RATES OF FARE.

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthia.....    | 2 00   |

FOR THROUGH TICKETS

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent.

The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw Madison and Scott, Covington.

CLAYTON &amp; GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road. nov. 15\*

## W. G. ATKINSON,

Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated Maps and Reports furnished; Researches made for

Coal, Iron, Copper, Lead, or other Minerals, Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared. mar. 17

## RAILROAD IRON.

### LOCOMOTIVES.

4,000 Tons rails, 56 to 61 lbs. per yard. 200 tons rails 49 lbs. per yard. 1,000 tons rails 55 lbs. per yard. Also: several Locomotives of best manufacture, from 20 to 26 tons weight, adapted to roads of four feet eight and one half inches gauge, for sale by

H. H. GOODMAN &amp; CO.,

no. 7 Wall st., N. Y.

Jan 10, '56-2m.]

Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

VIA LAWRENCEBURG,

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at

4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 6.20 and 2 P. M. Trains, both connect through via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago. Office, 31 Main Street, west side, 5 doors north of Madison House.

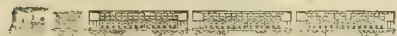
SIDNEY RICE, Agent.

Cincinnati, Jan. 31, 1855.



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

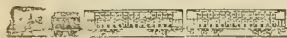
Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

**OLMSTED, TENNY'S & PECK,**

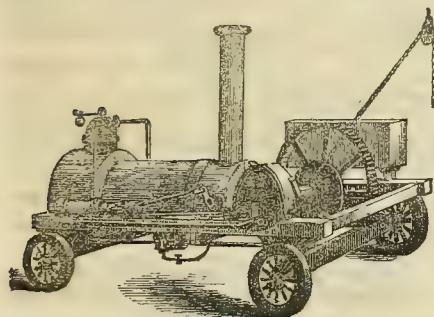
Louisville, Ky.

**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

**RICHARD NORRIS & SON.****A. L. ARCHAMBAULT'S****PORTABLE STEAM****HOISTING & PUMPING ENGINES;**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

**A. L. ARCHAMBAULT,**

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Printer's Alley), Philadelphia Aug 26m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

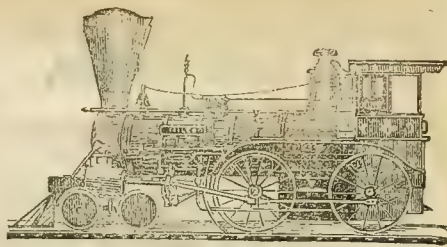
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler, while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad Companies."

COMMITTEE—Messrs. BRAND, FULTON and TILTON.

Manufactured by **J. M. BROWN.**

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shaving, &c. &c.

Feb. 13 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in

**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 percent, below that of most boxes in use. They will save about 75 percent, in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs over tenth part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

The first Railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

**WILLIAM SHERBURNE,**

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.****T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery.**

THIRD STREET, (west of Burnet House.)

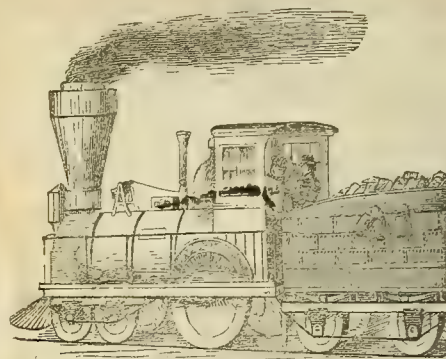
**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's Signal, Switch, Stoker and other Lanterns. Drawbridge and cross Road signal Lights; Gum Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Boiling, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

**MOORE & RICHARDSON.****WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

**CHARLES WASON,**

Late of the firm of T. &amp; K. Wason, Springfield, Massachusetts.

**Railroad Car Findings****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Boxes, and Casting Pit Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Couch Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,** From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS** Plush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Bells. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

**Portable Forges and Jack Screws.**

Hemp Packing; American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

**ALBERT BRIDGES.**

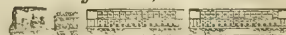
Late Davenport &amp; Bridges, Car Manufacturers.

Cambridgeport, Mass.

**ALFRED BRIDGES,**

Late Davenport, Bridges &amp; Co., Fitchburg, Mass.

to c6

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tucres, Harris Patent; portable bolt forges; toll heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

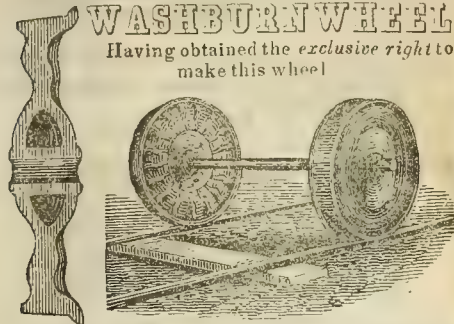
Dayton, Jan. 24th. 1853.

Jan. 25th



## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

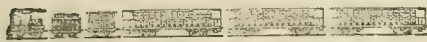


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.  
ap.12

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight-wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL.

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.  
authf.

**J. DAVENPORT . . . M. D. WELLMAN . . . C. M. RUSSELL**  
**DAVENPORT, RUSSELL & CO.,**

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

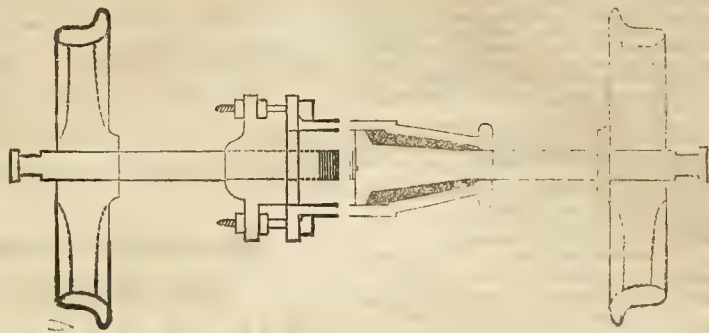
Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Fitchburg, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.  
F. B. 161\* **JOSEPH DAVENPORT.**

## S. C. THOMSON & CO., MANUFACTURERS OF

**PATENT PAD LOCKS,**  
For Railroad Switches, Merchandise Cars  
Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n.12+ **NEWARK, N. J.**

## DENNEY'S DIVIDED CAR AXLE.



PATENTED JANUARY 31ST, 1854.

THE ATTENTION OF RAILROAD COMPANIES is respectfully invited to an examination of the merits of this valuable invention, which offers to add largely to the safety of life and property.

The valuable features of this arrangement of axle are, a saving of full fifty per cent. in motive power on crooked roads: the rails are protected from being destroyed by the jangles of the wheels coming in contact with them on the curves, as is the case with the stiff or rigid axle, which not only destroys the rail but puts a constant strain upon the wheel and axle, causing the wheel on the inner rail to trip or revolve upon the rail under the weight of the car and its load, while the opposite wheel is traversing its greater distance; the tendency of which, is to wear the wheel flat, and cause it, or the axle, to break sooner or later. There is less danger of the car leaving the track from its having become spread.

Axles fitted in this way do not require to be near so large, and yet contain more strength than the common axle, for the reason that the liberty given to the wheels, which allows them to accommodate themselves to the curvatures of the road, removes wholly the strain thrown upon the ordinary axle; and therefore, it requires no more strength of iron at any point between the wheels than is contained in the bearings, which in the ordinary axle, is not more than one-third of the strength of the other portions of the axle.

The elongated bearing which forms the connection is so proportioned as not to wedge or become tight in the alloy, the wear being almost imperceptible, requiring to be set up not oftener than once in twelve months, by a slight tightening of the screw nuts. If, from long service, the alloy becomes worn out, it can be refilled, making it as perfect as when first filled up, and the gauge of the wheels will never become changed so as to injure the running of the car.

It is after a series of the most careful experiments, conducted through a period of time sufficient to test in the most satisfactory manner, the real merits of divided car axles, and a thorough and practical test in real service of over two years, that we now offer to Railroad Companies one that we are assured will give universal satisfaction in its operations, and both simple and cheap in its construction.

We are now ready to dispose of rights to use the above axle on the following terms: We guarantee full and perfect satisfaction by giving ample time to thoroughly test its merits, and will require no payment to be made until such satisfaction has been given. All applications to be made to

3710+

**SAMUEL L. DENNEY,**  
Christiana, Pa.

Or, to **CHRISTIAN UMBLE,**  
Gap, Pa.

## MCDANEL & HORNER,

**LOCO- AND CAR**  
**MOTIVE SPRING**

## MANUFACTURERS, WILMINGTON, DEL.

Locomotive and Car Springs of all descriptions manufactured on the most reasonable terms, made of the best STEEL, which we have manufactured to order from the BEST SWEDEN IRON. Orders from any part of the United States will be thankfully received and promptly attended to

**MCDANEL & HORNER.**

All Springs ordered from a distance will be delivered on shipboard at Philadelphia free of charge.

### References.

**NORRIS BROTHERS,** Locomotive Builders, Philad.

**A. C. GRAY,** Prest New Castle Manuf. Co.

**U. WELLS,** R. R. Car Manuf. Petersburg, Va.

**I. R. TRIMBLE,** Supt. Philad. R.R. Co.

May 19

**M. B. MILLEN,** Gen. Supt. C. R. R. Savannah, Ga

**EMERSON FOOTE,** Supt. M. & W. R. R. Macon, Ga

**THOMAS DOUGHERTY,** Master Mach. do.

**THOS. SHARP,** Supt. R. F. & P. R. R. Richmond, Va

## MIDDLETON, WALLACE & CO.,

### LITHOGRAPHERS & ENGRAVERS,

No 115 Walnut St., Cincinnati.

**RAILROAD BONDS AND CERTIFICATES OF STOCK**  
Beautifully executed and at moderate rates.

**Maps, Portraits, Views of Buildings and Cities, Notes, Drafts, Bills of Exchange, Show Cards, &c.**

Engraved in all styles and on short notice.

## THOS. M. CASH,

### PHILADELPHIA RAILWAY AGENCY

For the purchase of all articles required by Railway Companies, On Commission.

Office, No. 60, South Fourth-street, near Walnut,  
**PHILADELPHIA.**

### REFERENCES.

**Richard Norris & Son,** Locomotive Builders, Philad'a

**Wm. D. Lewis,** Esq. Pres't Catawissa R. R. Co. "

**Charles H. Fisher,** Esq. "

**Geo. Caldwell,** Esq., Pres't S. C. R. R. Co. Charleston, S. C

**Pinckney Huger,** Esq., Pres't N. E. R. R. Co.

Oct. 13-14.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,  
90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENNA R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR:—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent,  
ENGINEER DEPARTMENT, NORTH P. A. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,

Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—DEAR SIR:—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

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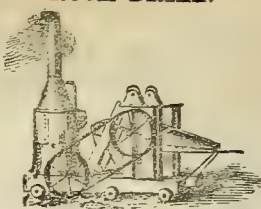
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Measures have been taken to secure a patent for this valuable invention.

LEE & LEAVITT,

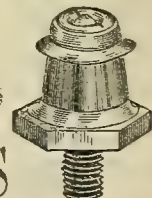
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# Railroad Record.

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 DAVID CHRISTY, Geological Cor'dent.

## CINCINNATI:

THURSDAY MORNING,.....FEBRUARY 7, 1856.

OUR EUROPEAN AGENTS FOR THE RAILROAD RECORD are  
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### OUR EDITORIAL DEPARTMENT.

To-day we add another name to our list of Editors—that of Professor CHRISTY, as Geological Correspondent. Professor CHRISTY, formerly of Oxford, but now of the *American Female College*, Glendale, Ohio, has long been favorably known as a Geologist. His duties, as Agent of the American Colonization Society, have led him to travel extensively, and he always gives attention to the Geology of the sections of country over which he passes. As he is now engaged as a Professor at Glendale, and designs fitting up his Geological Cabinet in the institution with which he is connected, he will continue to travel so as to increase his collections. This will enable him to collect much valuable information in relation to the Geology of the Railroads that carry him. Our *Record* is the appropriate channel for communicating such information to the public, and we have therefore secured his services for that field of investigation. His first article appears to-day.

VOL. 9.—No. 50.

## CLIMATOLOGY ON THE OHIO—ISOTHERMAL LATITUDES.

There are two sciences of great interest and value, which are yet in their infancy; but which will probably fill a large space, in the knowledge and developments of the next generation. These are Ethnography, and Climatology. The former is altogether a social science, the latter a physical one. The former, if properly pursued, will give a fuller and better knowledge of the history of Man, than all other sciences, and the latter, of the laws which regulate his condition on earth. Neither of them could have been known, till other sciences, essential to their study, were developed, and laid the foundation for these.

The subject of Climatology in the United States is of great interest, especially in its relation to health and agriculture. Taking the United States in its whole length and breadth and there is a *climate for every known plant*; but the climate most suitable for certain plants—that is, the one which will bring them to the greatest perfection is scarcely yet discovered. An example of this may be found in the doubts yet existing, as to the best locality for the grape, and the varieties to be cultivated. We propose here to notice only some general laws of Climatology, which are supposed now to be settled:

1. Climate does not depend necessarily on *latitude*; that is, it does not depend on being a certain number of degrees from the tropics, in order to produce a certain climate. At an equal number of degrees of latitude, the climates of two places are found to be very different. It is ascertained, however, that a certain *curve* going round the earth, has at every point, the same climate, in the main features. This curve is called an *Isothermal line*. The reasons why this Isothermal line is not the same with a line of latitude, are supposed to be these.

2. That the *currents of wind* carry with them extensive *strata* of air, either cold or hot, which modify the temperature and consistency of the ordinary air, where they prevail—the currents of wind, being themselves modified, by vast masses of ocean water, and by the great rarification of the atmosphere at the tropics, and by mountain chains of land, are necessarily irregular; and, hence, the currents of the same temperature are *deflected* both above and below a uniform latitude.

3. It is discovered, that *Electricity* is a great and universal force, prevailing in greater or lesser quantities at different times and places. This modifies and changes vegetable growth. The laws of electricity, in their relation to vegetable life, or atmospheric changes have not been fully discovered, and it is these laws, which unquestionably will be discovered hereafter, and give interest to the future study of Climatology.

Some of the principal facts, in relation to

the climatology of the Ohio valley, we will now state:

*First.* We will take Cincinnati and New York, as two places whose difference of *climate*, we want to discover. The latitude of Cincinnati is 39° 6', that of New York 40° 42'. The difference of latitude there is only *one degree and thirty-six minutes*; which in itself, would, not occasion a very great difference of climate; but, when we come to look at the Isothermal line; which can be found on a good map of Physical Geography, we find that the *actual difference* is fourfold that indicated by the latitude! In fact, Cincinnati is in a much milder climate, than New York. The Isothermal line of Cincinnati passes through *Lyons* (France), *Milan* (Italy), *Constantinople* and *Southern Japan*. On the other hand the Isothermal line of New York, passes through *Belfast* (Ireland), *Berlin* (Germany), *Gulf of Perekop* (Crimea), and *Jesso* (Northern Japan). To understand the difference of climate, thus produced, we have prepared the following table, representing the latitudes of the principal places on the Isothermal lines, and the difference of latitude:

|                     | Cin., Iso-Ther. |      | N. Y. Iso-Ther. |      | Difference. |      |
|---------------------|-----------------|------|-----------------|------|-------------|------|
|                     | Deg.            | Min. | Deg.            | Min. | Deg.        | Min. |
| New York.....       | 40              | 42   | —               | —    | —           | —    |
| Cincinnati.....     | 39              | 6    | —               | —    | 1           | 36   |
| Belfast.....        | 54              | 35   | —               | —    | —           | —    |
| Lyons.....          | 45              | 30   | —               | —    | 9           | 05   |
| Berlin.....         | 52              | 30   | —               | —    | —           | —    |
| Milan.....          | 46              | 29   | —               | —    | 7           | 01   |
| Perekop.....        | 45              | 55   | —               | —    | —           | —    |
| Constantinople..... | 41              | 00   | —               | —    | 4           | 55   |
| Jesso.....          | 40              | 00   | —               | —    | —           | —    |
| Southern Japan..... | 36              | 00   | —               | —    | 4           | 00   |

We observe here two remarkable facts; *first*—that, in crossing the Atlantic, the Isothermal lines of both Cincinnati and New York, are rapidly *deflected* to the north, but that of New York in a much greater proportion. In the longitude of Belfast (Ireland), these lines are nearly ten degrees apart.—*Secondly*, after passing the longitude of Berlin (in the north of the continent), they are again rapidly *deflected* to the south and approach nearer together; so that, in Japan, they are only four degrees apart. In Japan the Isothermal line of Cincinnati actually passes south of this place; having recovered more than all it lost, in traversing the continent of Europe.

Now, if the Isothermal lines be correct, the climate of Cincinnati will admit the cultivation of such plants as are easily raised at Lyons, Milan, Constantinople and Japan.—But, the climate of New York will not admit the cultivation of plants which will not grow successfully in Berlin, Perekop, or North Japan. Let us see how this works practically. Take, for example, the *VINE*. At Berlin and Belfast, on the Isothermal line of New York—the vine cannot be cultivated, in the open field, as a wine producer. But around the cities of Lyons, Milan and Constantinople, on the Isothermal line of Cincinnati, are some of the finest wine countries of



the world. Hence, we see, at once, the reason why Cincinnati is and is likely to remain one of the best wine districts on the Continent of America. It is true, that some other circumstances, such as soil and shelter, modify the growth of the vine; but, it can change but very little, its capacity to produce large and profitable crops, that is to become a *staple* article of produce. Thus, the Catawba, our best wine grape, grows very well on the Hudson; but, there is no probability of its producing wine there to any extent. There are too many contingencies against it to make it a staple article.

We add here the following examples of the mean temperature, of the whole year, at several places, where wine is made, as compared with Cincinnati:

|                                  | Deg. | Min. |
|----------------------------------|------|------|
| Cincinnati—Mean temperature..... | 53   | 7    |
| Turin (Piedmont).....            | 53   | 1    |
| Vevay (Switzerland).....         | 50   | 8    |
| M. nheim (Rhine).....            | 50   | 3    |
| Dijon (France).....              | 52   | 9    |
| Valley of the Rhone.....         | 55   | 3    |
| Astrachan (Caspian Sea).....     | 50   | 0    |

But, in addition to *mean* temperature, we must take into view *extremes*, and these are far greater in our climate than in Europe. Our summer temperature is greater, and our winter temperature less. This it is which makes the European grape almost impossible to grow in this climate.

In addition to what we have said above, it may be remarked, that *cereals* and common vegetables are subject to much less delicacy and sensibility to climatic changes, than the vine. Hence it may be assumed, that any vegetable plant which will mature in Southern Japan, will also mature in the Valley of the Ohio, and as there may be many valuable plants there, unknown to our country, it will be well worth while to make an experiment on all such as can be brought here.

#### PROFITS OF RAILROADS -- PROSPECTIVE SOURCES OF FREIGHTS ON THE CINCINNATI AND CHARLESTON R.R.

The prospective value of railroad stocks is a question of no little concern at this moment. The ruinous losses sustained by the pioneer subscribers to some of our railroad enterprises, has had a discouraging effect on new undertakings. This result was to be expected, where too great a number of roads were projected towards the same point; but such occurrences should not prevent the prosecution of necessary improvements on lines constituting great national thoroughfares. This is true especially in reference to lines between the Southern and Western States, now in contemplation and under construction. The main lines connecting the East and West, which have long been in successful operation, should be the standard to which the latter class of roads ought to be referred.

The writer does not profess to be fully acquainted with the value of Railroad Stocks, as compared with other investments, but he

understands that the stocks of roads having the greatest amount of freights and passengers are paying fair dividends. The inquiry, then, with capitalists, will be directed to the question of the extent of travel, and quantity of freights which will naturally fall to the share of any projected road claiming their patronage. That the roads from Cincinnati, southwards, will have an abundance of business, no one acquainted with the agricultural, manufacturing and mineral resources of Kentucky, Tennessee, and North Carolina, can, for a moment, doubt. For example, we heard it stated, repeatedly, when traveling on the Tennessee and Georgia Railroads, recently, that the road from Dalton, southwards, had more freights than could be regularly transported on the line, and that a double track was becoming indispensable for the accommodation of the public.

Of what do railroad freights consist? Mainly of iron, lead, zinc, copper, hemp, flax, wool, cotton, wheat, rye, corn, and their products. To these we must add coal, and cattle and hogs, with their products, and then the catalogue is about complete.

Kentucky abounds in coal and iron ores, on the projected line of the Knoxville and Kentucky Railroad, and its rich soils are amply productive in hemp, the grains and grasses, and its farms in cattle and hogs. Tennessee can supply all these, and, in addition, is inexhaustible in zinc and copper.

The Rabun Gap Railroad, now in the course of construction, extends from Knoxville, by the valley of the Little Tennessee river, to Clayton, Georgia, and thence by Pickens and Anderson, South Carolina, to Charleston.

The copper mines of Tennessee, which now yield larger products than any others in the world, are situated in Polk county, in that State, near the margin of the adjoining county of Cherokee, in North Carolina. The ores of these mines have to be transported in wagons, at great expense, a distance of forty miles, to the Chattanooga and Dalton Railroads, and afford them already no inconsiderable amount of freights.

The Rabun Gap Railroad, a few miles beyond the North Carolina State line, crosses the same broad band of *Talcose Slate*, with *trap* and *amygdaloid* rocks, which include the Ducktown copper mines. The geological indications are that copper mines exist throughout this range of *Talcose Slate*, and that the Rabun Gap road will derive abundant freights from this source in North Carolina. This view derives additional strength from the fact that the range of mineral-bearing rocks extends from Ducktown, where the mines are now worked, through Cherokee county, North Carolina, to the Southern borders of Virginia, where the copper has been already discovered, and the mines found productive.

But these railroads between the West and the South, will not have to rely, wholly, upon the *agricultural* and *mineral* products of the country through which they pass, for the freights that are to render them profitable investments. In addition to the *travel* that they will have, they are to form not only the connections that will *fuse* the interests of the agricultural and planting States, but produce a revolution in the seat of our *Manufactories*. The line of separation between the cotton-growing district, proper, and the grain growing, affords the most delightful climate in the Union. On the routes of these railroads, there is an abundance of water power for *manufacturing* purposes. Indeed, it may be said to be unlimited in amount. This water power will not forever lie idle, when the West and South are united by railroad; but capital and labor will find it out, and the manufacturer will seat himself down midway between the cotton-planting and grain-growing regions. With only three months of mild winter weather, he will laugh at his brother, left behind to shiver in the cold, for seven months in the year, in icy New England.

On both sides of the Allegheny range of mountains, at the point crossed by the Rabun Gap Railroad, the water power is abundant; but as the capital and labor must go there from the North, mostly, it will concentrate upon the streams on this side of the Blue Ridge, because, south of that mountain, all Northern constitutions will be liable to attacks of the fevers prevalent on the Southern slope of the Alleghenies. In this state of things, it requires neither a prophet, nor the son of a prophet, to foretell that the seat of the cotton manufactories, ultimately, must be transferred to the point which will afford the greatest facilities at the least cost, and that the region to be made vocal by the hum of the spindle, and the clatter of the shuttle, will be in Eastern Tennessee and the Northwestern portion of North Carolina. There, the cotton can be most easily transported; there the provisions can be supplied at the lowest rates, and there the population can constantly breathe the pure mountain air, unpolluted by a single particle of *miasmata* from miry marshes or stagnant lakes.

It will not be long from the day that Cincinnati and Charleston are united by railroad, until the changes to which we have referred will begin to occur. We do not expect that the spindles and the looms of New England will be abandoned. That would involve too much pecuniary loss. But their multiplication in that climate will not continue. New manufactories will not be erected where both the cotton and provisions must be transported from great distances. Business men understand this subject.

But cotton factories will not stand alone.



The mountain lands of North Carolina, Tennessee, and Kentucky, are well adapted to wool-growing, and considerable attention is now given to sheep-raising. The clip of wool in these States, in 1850, was over four and a half millions of pounds, being a greater amount than was produced at the same period in Pennsylvania. If climate has an influence on the manufacture of wool, why may not as delicate fabrics be produced in North Carolina as in France?

These are some of the reflections which occupied my mind when journeying through the region of country referred to, and these are the prospective sources of freights for the projected Southern Railroads, that are to render their stocks profitable to the holders.

DAVID CHRISTY.

American Female College,  
Glendale, O., Jan. 30, 1856.

#### STATISTICS OF STEAM NAVIGATION IN THE MISSISSIPPI VALLEY.

We observe that Captain Shallcrop has furnished the *Louisville Courier* with a statement of the steamboats, and their tonnage, in the Mississippi valley. In the year 1851, Mr. Corwin, Secretary of the Treasury, provided the entire statistics of steam navigation in the West. By aid of these two reports, we can give a very accurate view of steamboat navigation, on the rivers of the West, for these two periods, and show their relative growth. We leave out of view the ports of Mobile, Galveston and Apalachicola, included in Captain Shallcrop's report, as not belonging to the Western rivers. The following is a comparative table, at an interval of nearly five years:

| Places.                | Boats. | Tonnage. | Boats. | Tonnage.     |
|------------------------|--------|----------|--------|--------------|
| New Orleans.....       | 122    | 34,736   | 139    | 41,165       |
| Port Burg.....         | 112    | 16,942   | 143    | 26,568       |
| Wheeling.....          | 46     | 7,190    | 48     | 7,418        |
| Cincinnati.....        | 111    | 24,509   | 91     | 25,600       |
| Louisville.....        | 61     | 15,180   | 89     | 29,106       |
| Nashville.....         | 18     | 3,758    | 42     | 9,671        |
| St. Louis.....         | 171    | 31,833   | 168    | 43,518       |
| Other places.....      | 9      | 700      | 17     | 2,745        |
| Aggregate.....         | 610    | 134,868  | 737    | 185,061      |
| Increase of Boats..... |        |          |        | 20 per cent. |
| " of Tonnage.....      |        |          |        | 40 "         |

It will be observed, that the *tonnage* has increased much faster than the *number* of boats. This has been the case for the last twenty years. The first class boats are now double the tonnage of the same class of boats in 1835.

It must also be remembered that the above table does not give either where the boats are *built*, or where they are *owned*; but, simply where they are *enrolled*, with their number and tonnage. In a former number of the *Record*, we gave the statistics of steamboat *building* and to the table above we will now add the number of crews (including officers), supposing the average crews to be the same now, as when they were ascertained in 1851, and reported to the Senate.

#### Steamboats. Crews.

|              |     |        |
|--------------|-----|--------|
| In 1851..... | 610 | 12,412 |
| In 1856..... | 737 | 14,894 |

Fifteen thousand officers and men employed in navigating steam vessels on the waters of the West is certainly a goodly number. Of all the steam vessels employed in the United States, *nearly half* are on the rivers of the West, and if we were to include the ports of the Gulf—quite half.

#### GILLESPIE'S LAND SURVEYING.

The science of Land Surveying, as well as Civil Engineering proper, in the last twenty years, has made rapid strides; and while the Surveyor and Engineer has frequently been compelled to invent new, and more rapid and accurate modes of doing his work, the text-books on these subjects have shown but little progress or adaptability to the present wants of the profession. Hence the prevalent idea that Surveying and Civil Engineering can only be learned in the field. The introduction, within the last few years, into our best colleges, of departments devoted exclusively to them, has developed a new era in the study of these sciences. The student may now enter the college hall, and learn there the theoretical and much of the practical part of both, so that when he enters the fields, he will lack only the experience necessary to mature his judgment. One of the first fruits of this system in the way of text-books is the work now before us—"The science of Land Surveying, by W. M. Gillespie, Professor of Civil Engineering in Union College, and author of *Manual of Roads and Railroads*," &c.

Among the leading peculiarities of the work are these:

1. All the operations of surveying are developed from only *five simple principles*.

2. A complete system of surveying with only a chain, a rope, or any substitute, is fully explained.

3. Means of measuring inaccessible distances, in all possible cases, with the chain alone, are given in great variety; so as to constitute a *Land Geometry*. It occupies 26 pages, with 58 figures.

4. The Rectangular method of Compass-surveying is greatly simplified.

5. The Traverse-Table gives increased accuracy in one-fifteenth of the space of the usual tables.

6. The effect of the changes in the variation of the needle, on the re-survey of old lines, is minutely illustrated.

7. *Correct tables* of the times of the elongation of the North Star are given; those in common use being in some cases nearly half an hour out of the way.

8. The adjustment of the Engineer's Transit and Theodolite are here, for the first time, fully developed.

9. Methods of avoiding obstacles in angular surveying occupy 24 pages, with 35 figures.

10. Topographical Mapping is fully described, with illustrations.

11. Laying out, parting off, and dividing up land, are very fully explained, and illustrated by fifty figures.

12. The most recent improvements in the methods of Surveying the Public Lands of the United States, with the methods used for marking "corners," are minutely described from official authorities.

A double object has been kept in view in the preparation of the volume, viz.: to make an introductory treatise easy to be mastered by the young scholar or the practical man of little previous acquirement, the only pre-requisites being Arithmetic and a little Geometry; and, at the same time, to make the instruction of such a character as to lay a foundation broad enough and deep enough for the most complete superstructure which the professional student may subsequently wish to raise upon it.

#### NAVIGATION OF THE COLORADO.

We learn from a private letter, under date of Dec. 13th that a new steamer has just been put on this river to accommodate its increasing trade. This is the third steamer put on this river since 1850. These boats were built at San Francisco and sent down to the mouth of the Colorado, and there put up.—The last one is a stern wheeler, the others were side-wheel craft.

The letter says: "The new boat is finished and running. She is called the 'Colorado' and arrived here (Fort Yuma), on the 8th Dec., her first trip. She is one of the prettiest models I ever saw in my life, and is really an A No. 1 boat. She runs like a streak of lightning. She is of 100 tons burthen and 80 horse power, and everything about her complete and of the best material. The only objection to her is she is too sharp and therefore requires more water to run on than we have at some seasons of the year.—They say that her draft is light; but her being so sharp, interferes with her running in shallow water. However she made her trial trip in five days, with 50 tons of freight in the lowest water and worst river we have had since I have been here. She came from tide water to near Ogden's Landing, from sun to sun, in these short days."

The development of a region is one of the certain consequences that must follow its coming into the possession of people of energy and enterprise. It is but a few years since the region of the Colorado, and all California was known only to a few traders and travelers. It was spoken of as one of desert sands and bleak and rugged mountains. Today, it is considered as one of the finest regions in the world, both in point of agricultural and mineral wealth. Its arid sands, by a change in the policy of the agriculturist



have become fruitful fields, and instead of a grain importing, California is to-day a grain exporting country. And so it will be with other portions of the now "barren and howling wilderness." As enterprise develops its mineral resources, its agricultural value will be tested and it is altogether probable that it will be found a self-supporting region. Its valleys are already known to be rich and its plains will probably be found productive.

#### A GOOD IDEA—A WORD TO OUR EXCHANGES.

It often happens that readers of a daily paper, both in city and country, feel the want of a statistical journal, which enters more into the detail of the development of the resources and wealth of our country than the editor of a daily paper with his ceaseless round of toil can do. On such readers (and they comprise all the intelligent of the community), the editor of a daily paper would confer a favor that would be appreciated, were he occasionally to follow the plan of the *Vincennes Courier* and publish a list of the journals and magazines that he should deem most suited to supply their wants.

#### UNITING THE OCEANS.

Under the above head, the *Philadelphia Bulletin* has a notice of a proposition presented in the *Nautical Magazine* for a ship canal to unite the Atlantic and Pacific Oceans in the northern part of South America. The following from the *Bulletin* gives the outline of the plan:

"A project for a ship canal has lately been broached, which, although spoken of before, has only lately been considered worthy of serious attention. The route is by the Atrato river, which enters the Gulf of Darien about the eighth degree of north latitude. Surveys have lately been made by American engineers, who report most favorably. The bay of the Atrato is very spacious and deep, but the mouth is at present obstructed by sand-bars. The river is broad, and is said to have an average depth of 47 feet for 70 miles from its mouth, with a channel way of from 800 to 1200 feet in width. The line for the proposed inter-oceanic communication is to ascend the Atrato 63 miles, and then enter the river Truando, one of its tributaries, which is said to be now navigable for vessels drawing 12 feet of water, for a distance of 38 miles from its mouth. It is proposed to widen and deepen the river for 36 miles from its confluence with the Atrato. By this means a point will be reached 25 miles distant from the Pacific Ocean. But there are mountains here, and it is proposed to make an open cut through the rock, and thus reach the ocean. This cut will average 96 feet in depth, excepting a tunnel three and a quarter miles in length. The prism of the canal is to be 200 feet wide and 30 feet deep at extreme low tide."

The cost is estimated at \$147,000,000, and it is conceded that it would require the labor of 25,000 men for a period of twelve years. The wages of these laborers alone would amount to \$90,000,000. And after all this

vast outlay of capital and human energy, it would not still give us a road to the Pacific on our own soil, or capable of being protected by our own soldiers.

**SANDUSKY AND MANSFIELD RAILROAD.**—We learn from the *Register*, that on the 16th the election of Directors for the ensuing year, resulted in the unanimous choice of the following persons:

William Key Bond, Cincinnati; Geo. B. Wright, Newark; Elias Fasset, New York; Hocking H. Hunter, Lancaster; H. P. Warden; Mt. Vernon; Earl Bill, Sandusky; John W. Sprague, Huron; Robt. McComb, Mansfield.

The Directors, at a meeting held next evening, made choice of the following officers:

President—Wm. Key Bond.  
Vice President—Geo. B. Wright.  
Secretary—John W. Sprague.  
Treasurer—Earl Bill.

**MARION AND MISSISSINIEVA VALLEY R. R.**—We learn from the *Freeman's Journal*, that at the Meeting of the Board of the M. & M. V. Railroad Company, held at Union last week, J. H. Goodman was elected President; Converse, Vice President; James Brownlee, Secretary and Treasury, and Isaac Young, Chief Engineer.

**SHORT TRACK FROM RICHMOND TO CHARLOTTESVILLE.**—A bill authorizing the Virginia Central Railroad to construct a straight road from Richmond to Charlottesville is now before the Virginia House of Delegates. Twenty-six miles will be gained by this road in the distance between the cities of Virginia and the Ohio river.

**THE BLUE RIDGE RAILROAD.**—The Virginia Board of Public Works have reported to the Legislature of that State that so far \$1,255 have been expended on this road. The road is seventeen miles long, over thirteen miles of which are now used. There remains to be completed 650 feet of the main tunnel, and 138 feet of the Brookeville Tunnel.

#### THE WEATHER.

To-day is the first indication that this capitious thing, the weather, gives signs of returning to its natural course. For over forty days we have had a protracted period of the coldest weather on record. The hydrants generally in this city, and others like us, not often visited with such severe weather, are frozen, and we are getting quite used to seeing enormous fires burning on the pavement, to thaw off the surface, and enable the men to reach the pipes. Last evening, however, was the beginning of a thaw, and it is to be sincerely hoped that it will be a gradual one. The damage done by a sudden freshet at this time would be enormous.

#### MEMORIAL FOR A PACIFIC R. R.

We are receiving returns from the memorials sent out, praying Congress, in its wisdom, to provide for the building of a Pacific Railroad. The following letter, accompanying a memorial signed by over 230 individuals, is so full of intelligence and public spirit, that we cannot refrain from publishing it:

MADISON, IND., Feb. 4, 1856.

Ed. R. R. Record—

KIND SIR:—I send you a few signatures to the "Memorial for a Pacific Railroad."

The severity of the weather, and impaired health, has prevented me from circulating the memorial as extensively as I otherwise would have done.

The Pacific Railroad project meets with almost universal favor in this part of the State. Occasionally we encounter an *old foggy*—those *rough-locks* to all improvements—who sets up his opinion as the standard which is to govern the powers and acts of Congress in the disposal of the public domain; but, the Pacific Railroad will be built notwithstanding, and the time is fast approaching when one united voice will go up to Congress, from the length and breadth of our republic, demanding its construction.

To those who have not yet returned the memorials, we would say that we would like to have all those that are designed for us sent early enough to reach us by March 1. Those who design sending to their friends in Congress, would also oblige us by sending them as early as that date.

That a Railroad to the Pacific is the greatest commercial and national want of our country at this present moment, we have not the slightest doubt, and that Congress has the intelligence to perceive this, and will provide for it, if the members can be satisfied, that such is the wish of the people, we have also never doubted. We say then to all who interest themselves in this matter, go on, fill up your memorials with signatures, and let us make for our national legislators a clear path to provide this greatest blessing that our nation can desire.

#### NEWPORT IRON WORKS.

Our readers will find in to-day's paper the advertisement of the Newport Iron Works. Of the character of the works and the material manufactured by them, we shall take occasion to speak more fully at a future time. Newport, from its close proximity to Cincinnati, and its ready means of access to all parts of the West, is a suitable place for the manufacture of railroad material. Railroad Superintendents would do well to get their list of prices.

#### TO CONTRACTORS.

We would call the attention of our readers to the advertisement of the Louisville and Frankfort R. R. in to-day's paper. They write proposals for re-building the masonry and superstructure of the bridge over the Kentucky River at Frankfort—the bridge to be four hundred and fifty feet long.



## Railroads.

### GREEN BAY AND LAKE SUPERIOR R. R.

At a meeting of the citizens of Green Bay and Howard held at the United States Hotel, on Monday evening, Jan. 14, Hon. M. L. Martin was called to the chair, and J. H. Howe chosen Secretary.

Hon. U. H. Peak was called upon, and stated the object of the meeting to be to take into consideration measures, in conjunction with the people of Lake Superior, to build a railroad to that Lake.

H. S. Baird, Esq., offered the following resolution, which was unanimously adopted:

*Resolved*, That we heartily concur with the people of Marquette county in their efforts to build a railroad to Lake Superior, and that we will use our utmost exertions to promote such an enterprise.

The following resolution, offered by Mr. Peak, was also unanimously adopted:

*Resolved*, That a Committee of five be appointed, whose duties shall be to confer with other Committees or Companies in relation to a Railroad between Green Bay and Lake Superior, and to take such measures as they may deem expedient to procure the location and building of said road.

Messrs. U. H. Peak, H. S. Baird, T. O. Howe, J. S. Fisk and P. Fox, were appointed such Committee. On motion, Hon. M. L. Martin was added to the Committee by the meeting.

On motion, it was resolved that the proceedings of this meeting be published in the *Green Bay Advocate*.

On motion, the meeting then adjourned.

M. L. MARTIN, Ch'n.

JAS. A. HOWE, Sec'y.

**MEETING OF COMMITTEE.—Tuesday Eve, Jan 15.**—At a meeting of the Committee appointed by the R. R. meeting called out at the U. S. Hotel on the 14th inst., U. H. Peak, Esq., being absent, Hon. H. S. Baird was appointed Chairman, and J. S. Fisk, Secretary. Met by Dr. Hewitt and Mr. Harvey, of Marquette and Ontonagon. After hearing a very interesting and satisfactory account of proceedings and desires of the Lake Superior interest, it was on motion of Hon. M. L. Martin,

*Resolved*, That we have heard with entire satisfaction the explanations and views presented by Messrs. Harvey and Hewitt in relation to the proposed railroad communication with Lake Superior, and we adopt for circulation and signature by the people of Green Bay, the memorial proposed by the citizens of Ontonagon and Marquette, asking aid from Congress to construct said road.—*Green Bay Advocate*.

**PHILADELPHIA, WILMINGTON AND BALTIMORE R. R. ELECTION OF DIRECTORS.**—At the annual meeting of the stockholders of the P. W. and B. Railroad Company, held in the city of Wilmington a few days since, the following gentlemen were elected Directors for the ensuing year: S. M. Felton, M. Brooke Buckley, Moncure Robinson, Aubrey H. Smith, Joseph C. Gilpin, John A. Duncan, Jesse Lane, Mahlon Betts, Frederick A. Curtis, John C. Groome, J. I. Cohen, Jr., Thos. Kelso, Columbus O'Donnell, Enoch Pratt, Thomas Donaldson. At a subsequent meeting, the Directors organized by electing S. M. Felton, President, and Alfred Horner, Secretary and Treasurer.

### NEW YORK—ITS RAILROADS AND BANKS—GOVERNOR'S MESSAGE.

We find the following mention of these important interests in this State in the annual message of the Governor:

#### RAILROADS.

There are now in active operation in this State, 3,316 miles of railroads, including double tracks. The whole amount expended in their construction and equipment exceeds one hundred and twenty-five millions of dollars. There have been transported on the several railroads in the State during the past year, 33,839,164 passengers, and 3,417,207 tons of freight. The total cost of operating these roads was \$11,310,071 81, and their earnings amounted to \$20,843,385 73.

The large amount of capital invested in these corporations, the immense number of passengers conveyed, and the magnitude of the interests involved, early excited the attention of political economists and legislators. The necessity of wise laws regulating these interests, and a proper supervision of these great thoroughfares of the people, became a matter of serious consideration.

The Legislature, therefore, at its last session, enacted a law creating a Board of Railroad Commissioners, and defining their powers and duties. This Board is composed of one person appointed by the Governor and Senate, one elected by the directors of the various railroad corporations and the State Engineer and Surveyor, who is elected by the people. The Board thus appointed insures in its composition the representation of all the Railroad interests in the State. Like the Banking department, the Board is maintained by the different corporations it is appointed to supervise, and does not impose any burdens upon the State.

The annual report of the Commissioners will soon be laid before you, containing full details of the business of their department, and much valuable information. I trust you will give such consideration to the recommendations and suggestions they will submit, as their importance demands.

#### BANKS AND CURRENCY.

For the details of the condition of the Banks of the State, I refer you to the annual report of the Superintendent of the Banking Department. From this it will appear that during the last fiscal year 16 Banking Associations and 16 Individual Bankers have commenced business under the provisions of the General Banking law, deposited securities and received circulation. Of such associations 8 were organized by the shareholders of expiring Safety Fund Banks under the provisions of chapter 312 of the laws of 1849.

During the same period four Banking Associations and five Individual Bankers have given notice of their intention to discontinue business, and have withdrawn a portion of their securities, upon the surrender of an equal amount of their circulating notes.

The whole amount of circulating notes issued to Banking Associations and Individual Bankers, and outstanding on the 30th of September, 1855, was \$24,438,001, for the redemption of which there was then held by the Superintendent, securities as required by law, amounting to the sum of \$25,590,848. The amount of unreturned circulating notes issued to Banks incorporated by special acts, and whose charters have not expired, was, on the 30th day of September last, \$11,290,235. At the same date the aggregate amount of the outstanding circulation of Banks incorpor-

ated by special act, whose charters had previously thereto expired, was \$5,431,386.

On the 30th day of September, 1855, there was a balance of money in the treasury belonging to the Bank Fund of \$116,102 84. Of contributions due from several expired Safety Fund Banks \$9,125 77, and on bonds and mortgages held on account of the fund, the sum of \$13,863 32, amounting in all to the sum of \$139,091 93, besides the balance of unavailable assets of the City Bank of Buffalo. The total amount of outstanding and unredeemed Bank Fund Stock, issued on the credit of the Bank Fund, to meet the liabilities of the fund, on account of the debts of broken Safety Fund Banks was on the 30th of September last \$424,961 30; of which amount \$85,550 matures, and is redeemable on the 1st day of February next, and will be promptly paid out of the cash in the treasury belonging to the fund.

If no failures occur in the existing Safety Fund Banks, it is anticipated that the fund, with the future contributions to be made to it, will be sufficient to meet all such stock thus charged upon the credit of the fund.

The Banks have uniformly preserved their faith to the public, and justly enjoy the increased confidence of the people. The high premiums on the stocks taken as a security for their circulating notes and a rigid scrutiny into mortgages when taken as a part of such security, serve in a great measure to check banking except as a legitimate business. Our Banks, with few exceptions, are local institutions, confining their business, as the law contemplates, to their neighborhoods.

I should deprecate any attempt to introduce a more available class of securities as a basis for currency than those now received, fearing that with greater inducements, purely circulating Banks would again spring into existence, to the detriment of legitimate institutions, and to the peril of our free Banking system, and the danger of the public interests.

The frequent and sudden expansions and contractions of the currency in the city of New York occasion serious embarrassment and onerous sacrifices. In this manner, and in the absence of any adequate monetary necessity, the various business interests of our commercial metropolis are deranged and crippled. This evil is supposed to arise from the employment by Banks of large means of most of their capital in "call loans" to brokers and capitalists, upon stock securities. This abstraction of banking facilities from Commerce and Manufactures, drives the merchant and mechanic into "the street," where they are compelled to pay from one to two per cent. per month for money, which the favored borrower obtains "on call" at the rate of six per cent. per annum. It is suggested that a law restraining banks from making loans on the hypothecation of stocks beyond a reasonable per centage of their capital, would, by compelling these institutions to resume their legitimate functions, place banking facilities within the reach of the industrial and producing classes, and thereby promote the general welfare.

**LEHIGH VALLEY R. R.**—The following gentlemen have been elected officers of this road: W. W. Longstreth, of Philadelphia, President; Directors, John F. Johnson, of New York, W. H. Gatsmer, J. G. Feil, and E. A. Packer, of Philadelphia; Asa Packer, of Maunch Chunk, Secretary; and David Burnett, of Easton, Treasurer.



## FINANCES OF PENNSYLVANIA.

We gather from the published report of the Auditor of this State the following summary of its present means, expenditures and liabilities.

|                                                         |                |
|---------------------------------------------------------|----------------|
| Receipts during the fiscal year.....                    | \$5,390,474 11 |
| Balance reported in Treasury Nov. 30, '54. 1,240,928 72 |                |
| Amount of revenue.....                                  | \$6,631,402 83 |
| Amount of ordinary or permanent expenditures.....       | \$1,189,512 93 |
| Extraordinary expenditures, North Branch Canal.....     | \$7,562 67     |
| Do. Allegheny Portage R. R.....                         | 446,762 12     |
| Do. S. Track Col. R. R.....                             | 133,100 00     |
| Do. Redemption of Loans.....                            | 316,530 60     |
| Do. Domestic creditors.....                             | 1,629 85       |
| Do. Relief notes.....                                   | 260,588 00     |
|                                                         | 1,246,193 24   |
| Total amount of expenditure.....                        | \$5,385,705 32 |
| Balance in Treasury, Dec. 1st, 1855.....                | 1,215,697 31   |
|                                                         | \$6,631,402 83 |

It will be observed, from these statements, that the ordinary revenues of the Commonwealth have exceeded the ordinary expenditure of the year a fraction over a million and a quarter of dollars. By the subjoined statements, collated from former reports of this department, it will appear that there has been a steady increase of the ordinary revenues of the Commonwealth, averaging nearly a quarter of a million of dollars, annually, since 1849, while the ordinary expenditures in the same period have increased by a fraction over ninety thousand dollars per annum, having reached their culminating point in 1854, being \$170,728 64 less in the fiscal year of 1855 than they were in the previous year:

|                                              |                |
|----------------------------------------------|----------------|
| Total receipts for 1849.....                 | \$1,433,688 65 |
| Less loans and premiums on loans.....        | 392,714 61     |
| Ordinary revenue.....                        | \$1,040,974 04 |
| Ordinary Expenditures.....                   | 3,597,227 63   |
| Total receipts for 1850.....                 | \$4,428,131 51 |
| Less loans.....                              | 200,000 00     |
| Ordinary revenue.....                        | \$4,168,181 51 |
| Ordinary expenditures.....                   | 3,786,266 29   |
| Total receipts for 1851.....                 | \$4,570,393 93 |
| Less loans and sales on public property..... | 222,873 20     |
| Ordinary revenue.....                        | \$4,347,520 73 |
| Ordinary Expenditures.....                   | 3,628,796 66   |
| Total receipts for 1852.....                 | \$7,716,552 17 |
| Less loans, &c.....                          | 3,237,552 70   |
| Ordinary revenue.....                        | \$4,478,999 87 |
| Ordinary expenditures.....                   | 4,029,456 14   |
| Total receipts for 1853.....                 | \$9,486,770 08 |
| Less loans, &c.....                          | 4,607,576 23   |
| Ordinary revenue.....                        | \$1,659,222 75 |
| Ordinary expenditures.....                   | 4,218,139 90   |
| Total receipts for 1854.....                 | \$5,953,670 66 |
| Less Loans, &c.....                          | 77,627 81      |
| Ordinary revenue.....                        | \$5,206,042 85 |
| Ordinary expenditures.....                   | 4,710,240 92   |
| Total receipts for 1855.....                 | \$5,390,474 11 |
| (No loans or extraordinary receipts).....    |                |
| Ordinary revenue.....                        | \$5,390,474 11 |
| Ordinary expenditures.....                   | 4,139,512 24   |

These figures exhibit an annually augmenting revenue, without a corresponding increase in the expenditures, and which will doubtless continue to keep pace with the rapidly increasing value of real and personal property throughout the Commonwealth. They also exhibit the gratifying fact, that for the first time in many years no loan has been negotiated, and that the ordinary sources of revenue supplied all the purposes of the government, and I take pleasure in stating that no such loan will be required, the balance in the treasury, at the close of the fiscal year being

sufficiently large, after adding to it the ordinary receipts from that period to the first of February next, to meet the payment of the semi-annual interest on the State debt then due, as also to meet such more ordinary demands as may in the mean time be made on the treasury.

## FUNDED DEBT.

|                          |                 |
|--------------------------|-----------------|
| Six per cent. loans..... | \$ 616,184 93   |
| Five do. do.....         | 28,807,445 61   |
| Four and a half do.....  | 2-8,266 00      |
| Four do.....             | 100,000 00      |
|                          | \$30,907,800 47 |

## UNFUNDED DEBT.

|                                         |                |
|-----------------------------------------|----------------|
| Temporary loan of April 19th. 1853..... | \$525,000 00   |
| Temporary loan of May 9th. 1854.....    | 326,000 00     |
| Relief Notes.....                       | 258,773 00     |
| Interest Certificates.....              | 29,157 25      |
| Domestic creditors.....                 | 1-31 00        |
|                                         | 1,160,184 25   |
| Total Public Debt, Dec. 1, 1854.....    | \$1,166,384 72 |

NOTE.—The public debt (funded and unfunded), as it stood on the 1st day of December of each year, from 1845 to 1855, both inclusive, is as follows, viz:

| Year.     | Amount.         |
|-----------|-----------------|
| 1845..... | \$40,986,393 22 |
| 1846..... | 40,789,577 00   |
| 1847..... | 40,628,949 51   |
| 1848..... | 40,474,786 93   |
| 1849..... | 40,511,173 92   |
| 1850..... | 40,775,485 42   |
| 1851..... | 40,172,226 19   |
| 1852..... | 41,521,875 37   |
| 1853..... | 41,156,279 54   |
| 1854..... | *41,698,595 74  |
| 1855..... | 41,167,994 12   |

\*This embraces \$50,000 of a re-issue of Relief notes omitted in the statement of that year, as well as \$23,000 of a re-issue of a prior year, also omitted.

THE MARYLAND DELAWARE RAILROAD.—The *Easton Star* has a memorial to the Legislature, which is circulated in Talbot and the adjoining counties, praying for the balance due the Eastern Shore for works of internal improvements on the \$1,000,000 appropriated by the Legislature in 1836 for that purpose. The petition states that by the 8th section of the act passed at December session, 1835, chapter 595, the treasurer of the Western Shore was authorized to subscribe for one million of dollars of the capital stock of the Eastern Shore Railroad Company, on condition that the subscriptions to the stock of said company (including that of the State) should be sufficient for the construction of said railroad. But in the event of sufficient stock not being subscribed, "then and in that case the million of dollars set apart for, and intended to be applied to said work shall be held sacred, and the faith of the State is hereby pledged that the said million of dollars shall be applied to the exclusive purpose of internal improvements on the Eastern Shore, and for no other purpose whatsoever; and shall be subject to the disposition of any future Legislature for this purpose.

The appropriation not proving sufficient for the construction of the road, the work was stopped, and the balance of the money, \$827,335.86, retained by the State, and this balance the petition now asks for the prosecution of the Maryland and Delaware Railroad.—*Baltimore American*.

## ERIE TROUBLES SETTLED—DECISION IN THE SUPREME COURT.

SUPREME COURT.—Justices Lewis, Lowrie, Woodward and Knox.

*The Erie Railroad Cases*.—The Cleveland, Painesville and Ashland Railroad Company vs. The City of Erie and others. Judge Black delivered the unanimous opinion of the Supreme Court in favor of the Railroad Company, holding,

1st. That under the act of the 5th of May, 1854 the Cleveland Railroad Company have the right to extend their road through the streets of Erie, to the eastern boundary of the city, and connect there with the Erie and North-East road.

2d. That the resistance and destruction of the work by the Mayor and Councils of Erie, are unlawful, and ought to be restrained. Injunction granted, and decree against the city of Erie, Mayor and Councils for cost.

In the case of the *Erie and Northwest Railroad Company against Joseph Cusey*, Judges Black, Lowrie and Knox held that the Act of Assembly repealing the charter of the Company is constitutional and valid, and refused an injunction. Chief Justice Lewis and Mr. Justice Woodward held that the act of repeal is unconstitutional and void. This case will be taken to the Supreme Court of the United States.—[Pennsylvanian.]

## Miscellaneous and Mechanical.

## DEVELOPMENT OF HEAT IN STEAM BOILERS—HARSHMAN'S THEORY—INTERESTING EXPERIMENT.

We have received from Mr. Harshman, of Dayton, a pamphlet containing his views on the electrical development of heat, and the means of saving fuel, and preventing explosions in steam boilers. Mr. Harshman has been employed for several years in carrying on a series of experiments, having especial reference to the relations of the electrical condition of metals to the development of heat in steam boilers, and the means of reducing the danger of or rather preventing explosions. We mention these facts to show that Mr. Harshman's theory is no new fledged thing thrown at random on the world at the instant of its conception. The facts in the matter have been patiently proved by experiment, and the theory adopted has been rather the result of the experiments, than the experiments the result of the theory. We therefore ask for this subject the attention that it deserves in respect to its own importance, and the manner in which it has been approached by the inventor. We would, however, be distinctly understood as neither advocating nor disparaging it. We shall give the theory in few words, and then detail an interesting experiment at which we were present.

Mr. Harshman's theory is, that water contains a large amount of latent heat, which, under some circumstances, is capable of being rapidly and dangerously developed, and under others of being gradually freed without danger, and that to accomplish this, it is necessary to establish an electric or galvanic equilibrium in the boiler. That an iron boiler, covered in all but its fire surface and flues, with a copper coating, generates steam very rapidly, saving half the fuel, and cannot be exploded. It may rupture by over-pressure, and relieve itself by allowing an escape of steam, but it cannot explode. This he has



tested to his own satisfaction by single and comparative experiments, and has now set out to prove to others.

The first experiment was made a week ago to-day in this city. We were present in company with others, and were highly interested. The experimental boiler employed was a small cylinder without flues, twelve inches long and eight inches in diameter. The cylinder was made of iron .02 inches thick, and the ends somewhat thicker. The seams were riveted and soldered, and the safety valve fastened to the boiler by solder. The furnace was of common construction, without return flue. The boiler was placed in a strong frame of iron, the ends being confined, one by a bar extending across the end, and the other by a square piece of iron in the centre. One half the surface of the cylinder was exposed to the action of the fire, the other half was covered with copper. The ends were also covered with copper. The safety valve was confined by a long wire attached to a spring balance. The fuel employed was hickory wood well dried. The boiler, being placed in such position that its explosion could do no damage, the fire was lighted, and the observers withdrew to a distance to observe the pressure at the balance, and watch the operation of the experiment. In a few moments, steam had risen to a hundred, a hundred and fifty, and two hundred pounds, and in less than half an hour, the balance indicated a pressure of two hundred and sixty pounds. At this point, steam was observed to issue from underneath the copper sheeting. The safety valve was drawn tighter, and the fire continued for ten minutes, steam continuing to issue. The safety valve was then loosed and steam blown off, and the fire put out. On first examination, the boiler seemed only to have opened at the seam around the front head, and at the point where the safety valve was fastened; but subsequent careful inspection showed that the iron had opened in little fissures in several places which were perfectly tight under any ordinary pressure, but gave vent at the high pressure to which this experiment was carried. The ends of the boiler had bulged out to some extent, and the impression of the square nut at one end was left very distinctly crushed into the copper jacket. The day was clear and cold, with the wind blowing from the West.

This experiment was repeated on Saturday with the same result.

Now, according to all ordinary experience, the boiler should have burst with great force. Yet we are witness to the fact that it only ruptured and gave vent to the steam as easily as a safety valve usually relieves an ordinary boiler.

It is the intention of the parties soon to make a comparative experiment with one boiler coated and another uncoated. We hope to be there, and shall tell what we see.

#### WINTER SCENES ON THE BALTIMORE AND OHIO R. R.

We take from the Baltimore *Sun* the following interesting description of winter scenery on this picturesque and beautiful road:

The extraordinary weather that has prevailed in this latitude for the past three or four weeks has had its full effect upon our railroads and other means of travel and transportation. At times, indeed, it was thought a perfect embargo had been laid by the snow upon our communications, especially those with the West. When it is remembered that the Western or Mountain divisions of the Baltimore and Ohio road, with their long grades, deep cuts, enormous gorges, &c., have never before been visited with a serious snow storm since that great work was opened to the Ohio River, three years ago, the unusual difficulties lately presented will be better understood. One whose position necessarily renders him conversant with these difficulties, as well as the means which are employed for achieving a triumph over them, furnishes us the following interesting portraiture of the present "winter scenes" upon the road.

"In many places upon this magnificent highway, the Express trains have had to literally plough their way through immense drifts of snow, often from six to fifteen feet in depth. This has in every case, however, been successfully done, though sometimes requiring the united power of four and five of the ponderous Winans engines linked together. The company is, fortunately, well supplied with these powerful machines, which weigh some thirty tons each, and have great tractile power. Their resources under this head are also much increased by a number of splendid and powerful ten wheel engines, built by the Denmeads, and at their own shops, by Mr. Hayes, their well-known Master Mechanic.

"The encounters with the snow upon this road have led to some very curious scenes. At times the string of locomotives with their bold "plow" in front, have rushed suddenly upon a heavy drift, and before their power has been checked by the opposing force, they have become well nigh buried in the bank. After passing through this obstruction, the engines are turned around at the next station, and repeat the assault from the opposite directions, thus by repeated efforts effectually pushing off and "crushing out" the obstinate mass, until a lane is formed and the track is thoroughly cleared for the passage of the regular trains. These trains, in traversing the avenues thus made for them, literally pass through the snow, for it is piled up on either side to the height of the car tops. An interesting view of this character may be seen at the passage through the Carroll Manor in Frederick county, but 65 miles from Baltimore, where the late snows have invariably drifted across the road to a great depth.

"Perhaps the most magnificent phenomena on the line of the road presented by the late action of the elements, are to be witnessed at the bold "approach cuts" to the larger tunnels. Here are views worthy of the poet and the painter, and that would justify a thousand miles journey. As you enter one of these cuts, the gaping mouth of the tunnel is seen at the farther end. The sides of the cut are quite steep, and rapidly rise until the head is reached, at which point they are from forty to eighty feet in height. This forms an avenue for the road, open above, of from four to six hundred feet in length.

The whole of the sides of the great chasms as well as their high ends at the entrance to the tunnel, are completely covered with a solid coating of ice, varying in thickness from two inches to two feet. This is formed by the congealing water which trickles down from the lofty hills around and above. This sight is a novel one, and at the Board Tree and Welling Tunnels approaches the sublime. Ideas of the Alpine glaciers at once possess the mind, while the gigantic icicles that hang from the higher edges of the cliffs and the mouths of the excavations, remind us of the stalactites of the Mammoth Cave, and the more celebrated Grotto of Antiparos.

"At any time this scene is inspiring and wonderful, but when the bright sun reflects his full blaze upon its crowning points, the effect is greatly heightened. It will thus be seen that this road presents its peculiarly romantic wintry aspects, as well as its already renowned scenery, to attract the eye of the summer tourist.

"It is to be presumed, however, that the severity of the season, which has closed the Ohio River and otherwise impeded the connections of the road, besides exercising a depressing effect upon business affairs generally, has operated materially against the company's revenue for the current month. It is said that the business had greatly revived last week, and its usual regularity returned, when the new weekly instalment of snow which fell Sunday morning and yesterday again impeded its progress. But it is expected that no serious interruption will follow this last storm, as all things were in readiness for the labor of clearing the track.

"We may allude to another difficulty with which the company has had to contend during the recent severe weather; this is the great effect of the frost upon the machinery. It is well known that continued frost acts with damaging effect upon the more exposed parts of cast-iron. In locomotives, and in the wheels, axles, &c., of all cars, this is especially the case. We hear from all quarters of the effects of the cold in this particular. The newest and most solidly built machines are not exempt from this liability, and it may be safely estimated that at no previous period has there been more damage resulting from the weather, in this part of the country particularly, than during the last three weeks."



## TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

| COMPANY.                                                       | NATURE OF BOND.                                | INT. DUE.     | OFF'D. | ASK'D | SHS. OFF'D. | ASK'D   |
|----------------------------------------------------------------|------------------------------------------------|---------------|--------|-------|-------------|---------|
| Alabama and Tennessee.....                                     | 1st mortgage, convertible in 1872              | 7 1872        |        |       |             |         |
| Albany and Ohio.....                                           | Transferable. Taxed.....                       | 6 1885        | 91½    | 93    | 100         | 54 56   |
| Do do.....                                                     | Coupons. Not Taxed.....                        | 6 1875        |        |       |             |         |
| Do do.....                                                     | " ".....                                       | 6 1880        |        |       |             |         |
| Do do.....                                                     | " ".....                                       | 7 1880        |        |       |             |         |
| Do do.....                                                     | " ".....                                       | 6 1885        |        |       |             |         |
| Bellefontaine and Indiana.....                                 | 1st mortgage, convertible.....                 | 6 1866        |        | 98    | 50          | 38      |
| Buffalo and Penn. State Line.....                              | 1st mortgage, not convertible.....             | 6 1866        |        |       |             |         |
| Chicago and Rock Island.....                                   | 1st mortgage, convertible.....                 | 7 1870        | 93     | 98    | 87          | 90      |
| Chicago and Mississippi.....                                   | 1st " ".....                                   | 7 1862        |        |       |             |         |
| Do do.....                                                     | 2d " ".....                                    | 7 1874        | 65     |       |             |         |
| Chicago and Aurora.....                                        | 1st " ".....                                   | 7 1866        |        |       |             |         |
| Cincinnati, Newcastle and Mich. Real Estate.....               | " ".....                                       | 7 1859        |        |       | 100         | 101     |
| Cleveland, Columbus, and Cin'tilist mortgage, convertible..... | " ".....                                       | 7 1855        |        |       |             |         |
| Do do.....                                                     | No mortgage, convertible.....                  | 7 1855        |        |       |             |         |
| Cleveland and Mahoning.....                                    | " ".....                                       | 7 1861        |        |       | 100         |         |
| Cleveland, Paines, & Ashtabula 1st mortgage.....               | " ".....                                       | 7 1861        |        |       |             |         |
| Do do.....                                                     | 2d " " not convertible.....                    | 7 1861        |        |       |             |         |
| Cleveland and Pittsburgh.....                                  | 1st " " convertible.....                       | 7 1860        |        |       | 63          | 64      |
| Do do.....                                                     | 2d sec. convertible.....                       | 7 1873        |        |       |             |         |
| Cleveland and Toledo.....                                      | 1st mort. not conv. '73.....                   | 7 1863        | 93     | 94    | 50          | 73½ 74  |
| Cleveland, Zanesville, & Cin'ti.....                           | " ".....                                       | 7 1867        |        |       | 62½         | 65      |
| Cincinnati, Hamilton & Dayton 1st mortgage " till 1855.....    | " ".....                                       | 7 1860        | 85     | 87    |             |         |
| Do do.....                                                     | 2d mortgage.....                               | 7 1880        | 45     | 47    |             |         |
| Cincinnati, N. C. & Michigan.....                              | 1st mortgage, real estate, conv. 10 5 & 10 y's | 10 5 & 10 y's | 42     | 43    |             |         |
| Cincinnati Western.....                                        | " ".....                                       | 7 1867        | 12½    | 14    |             |         |
| Cincinnati, Wil. and Zanesville 2d ".....                      | " ".....                                       | 7 1867        | 20     | 25    |             |         |
| Cincinnati, Ind. and Chicago.....                              | " ".....                                       | 7 1867        |        |       |             |         |
| Cincinnati and Chicago.....                                    | Real Estate.....                               | 8 1859        | 35     | 36    | 9½          | 11      |
| Columbus, Piqua and Indiana.....                               | 1st mortgage, convertible.....                 | 7 1862        | 75     | 76    | 7½          |         |
| Do do.....                                                     | 2d " ".....                                    | 7 1862        | 60     | 61    |             |         |
| Columbus and Xenia.....                                        | 1st mortgage, convertible.....                 | 7 1859        | 90     | 91    | 85          | 87      |
| Covington and Lexington.....                                   | 2d " " till 1862.....                          | 7 1863        | 65     | 66    | 19½         | 21      |
| Do do.....                                                     | Income.....                                    | 10 1862       | 62     | 63    | 50          |         |
| Dayton and Michigan.....                                       | 1st " ".....                                   | 7 1867        |        |       | 50          | 20 22   |
| Dayton and Western.....                                        | 1st " ".....                                   | 7 1862        |        |       | 25          | 27      |
| Dayton, Xenia and Beipre.....                                  | Real Estate.....                               | 10 1862       | 55     | 61    |             |         |
| Eaton and Hamilton.....                                        | 1st mortgage.....                              | 7 1862        |        | 60    | 25          | 30 31   |
| Erie and Kalamazoo.....                                        | 1st mort. guaranty Mich. S. R. R.              | 7 1862        |        |       |             |         |
| Evansville and Crawfordsville.....                             | 1st mortgage.....                              | 7 1862        | 80     | 81    |             |         |
| Fort Wayne and Southern.....                                   | " ".....                                       | 7 1862        |        |       | 12½         | 14      |
| Franklin and Warren.....                                       | " ".....                                       | 7 1862        |        |       |             |         |
| Galena and Chicago Union.....                                  | Pledge of second section, conver.              | 10 1853-6     |        |       | 100         | 110 111 |
| Hillsboro and Cincinnati.....                                  | 1st mort.....                                  | 7 1878        | 50     | 61    | 50          | 25 27   |
| Illinois Central.....                                          | 1st mortgage, not convertible.....             | 6 1875        | 82     | 83    | 100         | 95½ 98  |
| Do do.....                                                     | Freeland.....                                  | 7 1866        | 81     | 82    |             |         |
| Indiana Central.....                                           | 1st mortgage, convertible.....                 | 7 1866        | 63½    | 75    | 50          | 45 50   |
| Do do.....                                                     | " ".....                                       | 10 1857       |        |       | 50          |         |
| Indianapolis and Bellefontaine.....                            | 1st " ".....                                   | 7 1860-1      | 75     | 80    | 50          | 60½ 62  |
| Indianapolis and Cin. a'ti.....                                | 2d mortgage.....                               | 7 1861        |        |       |             |         |
| Indianapolis and Lafayette.....                                | " ".....                                       | 7 1861        |        |       | 50          |         |
| Jeffersonville.....                                            | 1st " not ".....                               | 7 1867        |        |       | 36          |         |
| Junction (Ohio).....                                           | 1s 14 " ".....                                 | 7 1867        |        |       | 11          | 15      |
| Do Indiana.....                                                | Real Estate.....                               | 10 1867       | 70     | 72    | 10          | 15      |
| La Crosse and Milwaukee.....                                   | 1st mortgage, not convertible.....             | 8 1864        | 77     | 82    | 100         |         |
| Little Miami.....                                              | " " till 1855.....                             | 6 1863        | 81     | 83    | 50          | 90 93   |
| Do do.....                                                     | " " unconvertible.....                         | 7 1858        | 95     | 100   |             |         |
| Louisville and Nashville.....                                  | 1st mortgage, convertible.....                 | 7 1873        |        |       | 100         |         |
| Lyons, Iowa, Central.....                                      | 1st mortgage, convertible till 1855.....       | 7 1853-6      |        | 75    | 50          | 22 24   |
| Mad River and Lake Erie.....                                   | 2d " ".....                                    | 7 1866        | 70     | 75    |             |         |
| Do do.....                                                     | Dividend.....                                  | 7 1860        |        | 75    |             |         |
| Madison and Indianapolis.....                                  | 1st mortgage, convert. after 1853.....         | 6 1861        |        |       | 50          |         |
| Marletta and Cincinnati.....                                   | Domestic Bonds.....                            | 7 1861        | 50     | 51    | 50          | 17 20   |
| Do do.....                                                     | United 2d " ".....                             | 7 1861        |        |       | 50          |         |
| Hillsboro and Cincinnati.....                                  | 1st " ".....                                   | 7 1861        |        | 50 55 |             |         |
| Maysville and Big Sandy.....                                   | " ".....                                       | 7 1861        |        |       |             |         |
| Maysville and Lexington.....                                   | 1st mortgage, convertible.....                 | 6 1873        |        |       | 50          |         |
| Memphis and Charleston.....                                    | " ".....                                       | 8 1860        | 97     |       |             |         |
| Michigan Central.....                                          | No mortgage, convertible.....                  | 8 1855-6      |        |       | 91          | 92      |
| Do do.....                                                     | " ".....                                       | 8 1857-8      |        |       |             |         |
| Do do.....                                                     | " not ".....                                   | 8 1857-8      |        |       |             |         |
| Michigan Southern.....                                         | 1st " ".....                                   | 7 1860-90     |        |       | 89          | 90      |
| Milwaukee and Mississippi.....                                 | 1st " ".....                                   | 8 1862        |        |       | 34          | 35      |
| Mobile and Ohio.....                                           | 1st mortgage 6s. 1884.....                     | 8 1862        |        |       |             |         |
| Nashville and Chattanooga.....                                 | " ".....                                       | 8 1862        |        |       |             |         |
| New Albany and Salem.....                                      | mortgage on 1st section.....                   | 10 1858-62    |        |       | 50          | 6 10    |
| Do do.....                                                     | " on other sec. con. 1864-75.....              | 8 1864-75     |        |       |             |         |
| New Castle and Richmond.....                                   | 1st " convertible.....                         | 6 1873        |        |       |             |         |
| New York Central.....                                          | " ".....                                       | 7 1867        | 100½   | 102   | 89½         | 91      |
| New York and Erie.....                                         | 1st mortgage, not convertible.....             | 7 1867        |        |       | 100         | 54 55   |
| Do do.....                                                     | 2d " convertible.....                          | 7 1863        | 97     | 96    |             |         |
| Do do.....                                                     | " ".....                                       | 7 1863        | 91     | 92    |             |         |
| Northern Cross, Ill.....                                       | 1st mortgage, convertible.....                 | 8 1873        |        |       |             |         |
| Northern Indiana.....                                          | 1st " not convertible.....                     | 7 1861        | 98     |       | 89          | 90      |
| Do do.....                                                     | Goshen line.....                               | 1863          | 81½    | 82    |             |         |
| Do do.....                                                     | Construction Bonds.....                        | 7 1861        |        |       | 20          | 21      |
| Ohio Central.....                                              | 1st mortgage, convertible.....                 | 7 1861        | 67     |       | 6           | 8       |
| Ohio and Mississippi.....                                      | 2d " ".....                                    | 7 1860        | 43     | 46    |             |         |
| Ohio and Indiana.....                                          | 1st " ".....                                   | 7 1867        |        |       | 50          | 14 18   |
| Ohio and Pennsylvania.....                                     | " ".....                                       | 7 1865        |        |       |             |         |
| Do do.....                                                     | Income. No mortgage, convert. 7 1872.....      | 7 1872        |        |       | 50          |         |
| Pacific, Mo.....                                               | " ".....                                       | 7 1872        |        |       |             |         |
| Panama.....                                                    | 2d issue.....                                  | 7 1873        | 107½   | 108   | 101         | 103     |
| Parkersburg (or N. western Va.).....                           | Guar. City of Balt. 6 1880.....                | 6 1880        |        |       | 50          | 43½ 40  |
| Pennsylvania.....                                              | 1st mortgage, convert. till 1860.....          | 7 1862        |        |       | 25          | 10 20   |
| Pera and Indianapolis.....                                     | 1st " ".....                                   | 7 1860        |        |       | 50          |         |
| Rock River Valley Union.....                                   | 1st " ".....                                   | 7 1872        |        |       |             |         |
| Sandusky and Mansfield.....                                    | 1st " ".....                                   | 7 1860        |        |       |             |         |
| Do do.....                                                     | 2d " ".....                                    | 10 1853-7     |        |       |             |         |
| Scioto and Hocking Valley.....                                 | 1st " income.....                              | 7 1861        | 50     | 51    | 50          | 50 51   |
| Southwestern, Tennessee.....                                   | " ".....                                       | 7 1861        |        |       |             |         |
| Springfield and Columbus.....                                  | " ".....                                       | 7 1865        |        |       |             |         |
| Steubenville and Indiana.....                                  | 1st mortgage, convertible.....                 | 7 1865        |        |       |             |         |
| Terre Haute and Alton.....                                     | 1st " ".....                                   | 8 1862 72     | 91     | 93    |             |         |
| Do do.....                                                     | 2d " ".....                                    | 8 1865        | 78     | 80    |             |         |
| Terre Haute and Richmond.....                                  | 1st " ".....                                   | 6 1866        |        |       |             |         |
| Toledo, Norwalk and Cleveland.....                             | 1st " ".....                                   | 7 1863        | 87     | 88    | 50          |         |
| Do do.....                                                     | 2d " ".....                                    | 7 1863        |        |       |             |         |
| Do do.....                                                     | Guofar " 1863.....                             | 7 1863        |        |       |             |         |

## STOCK TABLE.

CORRECTED WEEKLY.

## GOVERNMENT SECURITIES.

|                           | INT. | DUE.    | OFF'D. | ASK'D |
|---------------------------|------|---------|--------|-------|
| U. S. Loan.....           | 6    | 1856    | 103½   | 105   |
| Do.....                   | 6    | 1862    | 112    | 113   |
| Do.....                   | 6    | 1867    | 117½   | 120   |
| Do.....                   | 6    | 1868    | 116½   | 118   |
| Coupons.....              | 6    | 1862    |        | 118   |
| Do.....                   | 6    | 1867    |        | 118   |
| Do.....                   | 6    | 1853    |        | 101   |
| STATE.                    |      |         |        |       |
| Alabama.....              | 5    |         |        |       |
| California.....           | 7    | 1870    | 84½    | 85    |
| Arkansas.....             | 6    |         |        | 96    |
| Georgia.....              | 6    |         | 98     | 99    |
| Do.....                   | 7    |         |        |       |
| Illinois Canal Bonds..... | 7    | 1860    |        |       |
| Do do registered.....     | 7    | 1860    |        |       |
| Do do.....                | 7    | 1847    |        |       |
| Do do registered.....     | 7    | 1847    |        |       |
| Do do Internal Imp't..... | 6    | 1847    | 105    | 106   |
| Do Interest do.....       | 6    |         | 72     | 75    |
| Indiana.....              | 5    |         | 82½    | 83    |
| Do.....                   | 2½   |         | 54     | 55    |
| Do Canal Loan.....        | 6    |         |        |       |
| Do do preferred.....      | 5    |         |        |       |
| Do special preferred..... | 5    |         |        |       |
| Kentucky, 30 years.....   | 6    | 1871    | 102    |       |
| Do 16 years.....          | 6    |         | 102    |       |
| Do large bonds.....       | 6    | 1869-72 | 100½   |       |
| Do.....                   | 5    |         |        |       |
| Louisiana.....            | 6    |         | 93     | 95    |
| Michigan.....             | 6    |         | 97     | 98    |
| Missouri.....             | 6    |         | 85½    | 86    |
| New York.....             | 6    | 1873    | 116½   | 117   |
| North Carolina.....       | 6    |         | 99     | 100   |
| Ohio.....                 | 6    | 1856    | 102    |       |
| Do.....                   | 6    | 1860    | 102½   | 106   |
| Do.....                   | 6    | 1870    | 107    | 110   |
| Do.....                   | 6    | 1875    | 110½   | 119   |
| Do.....                   | 5    | 1855    |        |       |
| Pennsylvania.....         | 6    |         |        |       |
| Do.....                   | 5    | 1870    |        | 89    |
| Tennessee, long loan..... | 6    | 1890    | 94½    | 95    |
| Do Coupons.....           | 5    |         | 81     | 83    |
| Virginia Coupons.....     | 6    | 1866    | 94     | 95    |

## CITY SECURITIES.

|                     |    |         |      |      |
|---------------------|----|---------|------|------|
| Albany.....         | 6  | 1871-81 | 99½  |      |
| Allegheny.....      | 6  | 1875-7  | 80   |      |
| Baltimore.....      | 6  | 1870-80 | 100  | 100½ |
| Do.....             | 5  | 1865    |      |      |
| Boston Bonds.....   | 4½ | 1860    |      |      |
| Chicago.....        | 6  | 1873-7  | 92½  | 95   |
| Cleveland.....      | 6  | 1879    | 103½ | 105  |
| Cincinnati.....     | 6  | 1866-92 | 96   | 96½  |
| Do.....             | 6  | 1867    |      |      |
| Do.....             | 5  | 1864    |      |      |
| Do W. W.....        | 6  | 1865    |      |      |
| Covington.....      | 6  | 1867    | 80   | 80   |
| Jeffersonville..... | 6  | 1890    | 25   |      |
| Louisville.....     | 6  | 1860    | 86½  | 87   |
| Memphis.....        | 6  | 1882    |      | 72½  |
| New York.....       | 7  | 1857    | 100½ |      |
| Do.....             | 5  | 1836-00 | 96   | 99   |
| Do.....             | 5  | 1870-5  | 97   | 100  |
| Do.....             | 5  | 1860    |      |      |
| Philadelphia.....   | 6  | 1876-00 | 89   | 89½  |
| Pittsburgh.....     | 6  | 1869-78 | 81   | 82   |
| Do coupons.....     | 6  | 1863    |      |      |
| Racine.....         | 7  | 1873    | 85   | 86   |
| St. Louis.....      | 6  | 1870    | 85   | 86   |
| Wheeling.....       | 6  | 1873    | 70   | 73   |

## COUNTY BONDS.

|                                                           |   |        |     |    |
|-----------------------------------------------------------|---|--------|-----|----|
| Bourbon, Ky.....                                          | 6 | 1881   | 77½ | 80 |
| Darke, O.....                                             | 7 |        |     |    |
| Fairfield, O.....                                         | 7 | 1862   |     |    |
| Fayette, Ky.....                                          | 6 | 1881-3 | 75  | 75 |
| Hancock Co.....                                           | 7 |        | 70  | 75 |
| Mason, Ky.....                                            | 6 | 1881   | 73  | 76 |
| McClacken Co. Ky., endorsed by New Orleans and Ohio R. R. |   |        |     |    |
| St. Louis.....                                            | 6 | 1866   | 80  | 85 |
| Do.....                                                   | 7 | 1871   |     |    |

## BANKS.

|                                       |     |     |  |  |
|---------------------------------------|-----|-----|--|--|
| American Exchange Bank, N. Y.....     | 118 |     |  |  |
| Ohio Life Insurance and Trust Co..... | 85½ | 100 |  |  |
| Washington Insurance Co.....          | 84  | 85  |  |  |
| City Insurance.....                   | 70  |     |  |  |
| Cincinnati Insurance Co.....          | 84  |     |  |  |
| National Insurance.....               | 75  | 80  |  |  |

## KENTUCKY.

|                                         |      |     |  |  |
|-----------------------------------------|------|-----|--|--|
| Bank of Kentucky and Branches.....      | 100  |     |  |  |
| Northern and Branches.....              |      |     |  |  |
| Southern and Branches.....              |      |     |  |  |
| Bank of Louisville.....                 | 93   |     |  |  |
| Kentucky Trust Co.....                  |      |     |  |  |
| Farmers' Bank of Kentucky, ex. div..... | 102½ | 108 |  |  |
| Commercial Bank of Kentucky.....        |      |     |  |  |

## INDIANA.

|                              |  |  |  |  |
|------------------------------|--|--|--|--|
| State Bank and Branches..... |  |  |  |  |
| TENNESSEE.                   |  |  |  |  |
| State Bank and Branches..... |  |  |  |  |
| Union.....                   |  |  |  |  |
| Planters.....                |  |  |  |  |

## LAND WARRANTS.

|                                 | Buy'g  | Sell'g |
|---------------------------------|--------|--------|
| 60 acre warrants, per acre..... | \$0 95 | 1 10   |
| 80 acre warrants.....           | 0 95   | 1 00   |
| 40 acre warrants.....           | 1 10   | 1 15   |
| 120 acre warrants.....          | 0 90   | 0 95   |



## RATES OF EXCHANGE.

| Place.            | Time.      | Buy'g | Sell'g. |
|-------------------|------------|-------|---------|
| On New York.....  | Sight..... | par   | 3/4     |
| Boston.....       | Sight..... | par   | 3/4     |
| Philadelphia..... | Sight..... | par   | 3/4     |
| Baltimore.....    | Sight..... | par   | 3/4     |
| New Orleans.....  | Sight..... | par   | 3/4     |
| England.....      | Sight..... | 109   | 109 3/4 |

## SPECIE.

|                               | GOLD.   |           |
|-------------------------------|---------|-----------|
| California clean, 1/2 oz..... | \$17 60 | @ \$17 65 |
| Spanish Doubloons.....        | 16 75   | @ 16 75   |
| Patriot Doubloons.....        | 15 75   | @ 15 80   |
| Sovereigns.....               | 4 86    | @ 4 88    |
| Guineas.....                  | 5 00    | @ 5 00    |
| American, new.....            | 1 00    | @ 1 00    |
| American, old.....            | 1 06    | @ 1 06    |
| Portuguese.....               | 1 00    | @ 1 00    |

## SILVER.

|                          |          |            |
|--------------------------|----------|------------|
| American Dollars.....    | 1 03 1/2 | @ 1 04     |
| American Halves.....     | 1 03 1/2 | @ 1 04 1/2 |
| Spanish Dollars.....     | 1 14     | @ 1 14     |
| Spanish Quarters.....    | 1 00     | @ 1 01     |
| Mex. can Dollars.....    | 1 03 1/2 | @ 1 04 1/2 |
| * Five Franc pieces..... | 97       | @ 97 1/2   |

\* The standard English value attributed to the Sovereign is \$4.44, in L. don. This with exchange added, say from 9 1/2 to 11 per cent., gives the American value of the English coin.

## LONDON QUOTATIONS

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAIT, STOCK BROKER, LON.

Dec 21, 1855.

|                                                     |     |      |
|-----------------------------------------------------|-----|------|
| Belvidere, Del., guar. 1st mort., conv.....         | —   | @ 87 |
| Chicago & Rock Island, Mort., conv. 1858.....       | —   | —    |
| Cin. Ham & Dayton, 2d mort.....                     | —   | 80   |
| Erie, 3d Mortgage, 1853.....                        | 81  | 83   |
| " Sinking Fund, 1853.....                           | 79  | 81   |
| " conv. 1853.....                                   | 74  | 77   |
| Grand Trunk (Canada) Debenture.....                 | 80  | 85   |
| Great Western " conv.....                           | 115 | 120  |
| " " non-conv.....                                   | 104 | 106  |
| Illinois Central, 1st Mort., 7's.....               | 72  | 74   |
| " " with option 70 per cent.....                    | —   | —    |
| shares till Jan. 1858.....                          | 74  | 76   |
| Joliet & Nor. Ind. Gua Mich. Cent. & Ill. Cent..... | —   | —    |
| Little Miami 1st Mo. L. not conv. 6's.....          | —   | —    |
| Marietta and Cincinnati, 1st Mort.....              | —   | 80   |
| Michigan Central, conv. 8's, 1860.....              | 93  | 95   |
| do do do " non-conv. 1860.....                      | 94  | 96   |
| N. York Central. No Mort. Not conv. 6's.....        | 79  | 81   |
| " " conv. 7's.....                                  | 92  | 94   |
| Ohio and Mississippi, 1st Mort.....                 | —   | —    |
| Ohio and Pennsylvania, Income 1872.....             | 75  | 86   |
| Panama No mort. conv. 1860.....                     | 92  | 94   |
| Pennsylvania, 1st Mort., conv.....                  | 85  | 87   |
| " " Sterling, 3d Mort.....                          | 88  | 90   |
| Steuersville and Ind., 2d Mort.....                 | —   | —    |

☞ The quotations given are sterling quotations. The American values to be obtained by adding on exchange generally about 10 per cent.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,

AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

## BONDS.

For the week ending February 6, 1856.

|                                                                             |             |
|-----------------------------------------------------------------------------|-------------|
| \$5,000 Covington & Lex. R. R. Co. 10 per cent. Income Bonds.....           | 62 and int. |
| 2,000 Ohio & Mississippi R. R. Co. 7 per cent. 2d Mortgage Bonds.....       | 43          |
| 5,000 Covington & Lex. R. R. Co. 7 per cent. 2d Mortgage Bonds.....         | 65          |
| 1,000 Hillsboro' & Cincinnati R. R. Co. 7 per cent. 1st Mortgage Bonds..... | 50          |
| 3,000 Little Miami R. R. Co. 6 per cent. 30 ds. due in 1853.....            | 81          |
| 2,000 City of Maysville 6 per cent. Bonds.....                              | 40          |
| 1,500 Marietta and Cincinnati R. R. Co. 7 per cent. Domestic Bonds.....     | 50          |
| 3,102 50 Little Miami R. R. Co. Dividend Scrip, December issue.....         | 80          |
| 1,400 Little Miami R. R. Co. Dividend Scrip June issue.....                 | 90          |
| 2,000 Covington & Lex. R. R. Co. 7 per cent. 2d Mortgage Bonds.....         | 67 1/2      |

## STOCKS.

|                                     |        |
|-------------------------------------|--------|
| 200 Shares Ohio & Miss R. R.....    | 6 1/4  |
| 100 " do do.....                    | 6 1/2  |
| 319 " do do.....                    | 6      |
| 390 " do do.....                    | 5 3/4  |
| 212 " do do.....                    | 5 1/2  |
| 40 " Covington & Lex.....           | 19 1/2 |
| 60 " Little Miami.....              | 90     |
| 46 " Cin., Hamilton and Dayton..... | 62 1/2 |
| 25 " do do.....                     | 62     |

|                                    |        |
|------------------------------------|--------|
| 61 " Peru & Indianapolis.....      | 15     |
| 14 " Columbus & Xenia.....         | 85     |
| 35 " Indianapolis & Cin. R. R..... | 60 1/4 |
| 112 " Cin & Chicago.....           | 9 1/2  |
| 180 " do.....                      | 9 1/4  |
| 22 " Dayton & Western.....         | 26     |
| 20 " Cincinnati Insurance Co.....  | 81     |
| 5 " Firemen's do.....              | 94     |
| 5 Cincinnati Fuel Co.....          | 100    |
| 4 " Little Miami R. R.....         | 89     |
| 2 Covington & Lexington.....       | 18     |

## Monetary and Commercial.

Since our last issue, no material change has taken place in the condition of the commercial world. The intensely cold weather still continues. This has been the most protracted spell of the coldest weather ever known in this section. Navigation and general business are still at a stand. The prospects for a change in the weather are, however, to-day favorable, and when the serious commercial inconvenience resulting to the mercantile world is considered, such a change is decidedly desirable.

The money market has been dull, owing to the causes noted above. There is, however, ample capital to supply the necessity of a much brisker trade than we now have. We, therefore, quote money easy at 9 to 12 per cent. Offerings light.

Eastern exchange has ranged from 1/4 to 1/2 premium.

In stocks, as our weekly report will indicate, a fair amount of business has been done. The market is, however, destitute of buoyancy. The prices of such stocks as may be considered doubtful tends down, while dividend paying securities are tending up.

Advices from the East note a state of feverish excitement consequent upon the last news from Europe. It is said Russia has (?) accepted the propositions of the Allies as the basis of peace negotiations. This information has been eagerly seized upon to run up the prices of fancies of every character. The transactions at the Stock Board ran up unprecedentedly large and prices rose. Feb. 1 will be remembered as one of the most active days of the year.

Sterling exchange was ranging from 8 1/2 to 8% to 8 1/2, the ruling prices being the first.

In Baltimore stocks have been dull, with, however, a material improvement consequent upon the European news.

## NEW YORK STOCK SALES, FEB. 1.

|                                       |        |
|---------------------------------------|--------|
| \$1,000 Virginia 6's.....             | 94     |
| 5,000 " large 8's.....                | 93     |
| 6,000 Tennessee 6's '90.....          | 94 1/2 |
| 5,000 Missouri 6's.....               | 85 1/2 |
| 10,000 Indiana State 5's.....         | 82 1/2 |
| 1,000 Erie 2nd mort.....              | 97     |
| 1,000 Hudson River 2nd mort.....      | 83     |
| 35,000 Ill. Cent. R. R. B'ds.....     | 82     |
| 5,000 Ill. Cent. R. R'ds with pr..... | 86 1/2 |
| 46 Shares Milwaukee & Miss. R. R..... | 34     |
| 100 " N. Y. Central.....              | 89 1/2 |
| 100 " Galena & Chicago.....           | 110    |
| 600 " Cleveland & Toledo.....         | 73 1/2 |
| 200 " Panama.....                     | 101    |
| 15 " Cleve., Col. & Cin.....          | 100    |
| 100 " Erie.....                       | 54     |
| 40 " Harlem.....                      | 18     |
| 50 " Long Island.....                 | 31 1/2 |
| 137 " Ch. c. & R. I.....              | 87     |
| 800 " Reading.....                    | 87 1/2 |
| 100 " Hudson River.....               | 30     |
| 100 " Mich. Central.....              | 91     |
| 100 " Mich. So. & No. Ind.....        | 89     |
| 250 " Cleve. & Pittsburgh.....        | 63     |

## NOTICE TO CONTRACTORS.

LOUISVILLE AND FRANKFORT RAILROAD  
SUPERINTENDENT'S OFFICE.  
Louisville, Ky., Jan. 30, 1856.

PROPOSITIONS are requested for the rebuilding of the masonry and superstructure of the Bridge across the Kentucky river at Frankfort, Ky. The superstructure will be near four hundred and fifty feet in length and the depth of water in the river near thirty feet.

Parties offering designs must accompany the same with detailed drawings.

Persons desirous of making propositions will please communicate immediately with the undersigned, at Louisville, Kentucky.

Feb. 7—Imo.]

SAMUEL GILL,  
Supt' L. and F. R. R.

## PAGE'S

## PATENT PORTABLE CIRCULAR SAW MILLS.

THE subscribers are manufacturing, under patent, the above Mill in connection with their Improved Hatchet Double Setting Head Blocks.

They also keep on hand a full and complete assortment of Cast Steel Saws of their own manufacture, Saw Mandrills, Shingle Machines, &c.

Office No. 15 Walnut St., Cincinnati, Ohio.  
Feb. 7.] LEE & LEAVITT.

## RAILROAD IMPROVEMENTS.

The following from the Greenville *Alabamaian*, speaks volumes for the benefits yet to result to real estate along the line of the Alabama and Florida Railroad.

The tide of emigration continues to pour into our county without abatement. Scarcely a day passes without our streets at times being almost filled with movers, who are locating in some portion of the country. Our taxable wealth has increased about a million of dollars within the last twelve months, and continues to increase as rapidly as ever.—Vast quantities of land, which twelve months ago was lying waste and vacant, is now entered and the owners are rapidly improving it. And why this rapid increase in population and wealth? The answer is simple and plain. It is mainly and almost entirely owing to the railroad which is being rapidly constructed to this place from Montgomery, and which when completed will run entirely through our county and to the Mobile and Girard road which will probably intersect the former at this place, if it does not cross it here and pass on through the county by a separate route. These improvements have added new life and energy to everything around us, and we venture the assertion, that there is not a property holder in the county who has not been benefitted already by these Railroad improvements. Nay, we will go farther, and give it as our solemn conviction that the increase in the value of the property of this county already, in view of these railroads, will be more than enough to build either of said roads entirely through this county. And these benefits have mainly resulted from the vigorous manner in which the work progresses on the Alabama and Florida Railroad. In this our people see something to build their hopes upon in future. They see the period not far distant when they can bid defiance to the sea of prairie mud between them and their market towns, when they can, in a few hours visit our beautiful capital with the produce of their productive farms, and return in safety to their families, and it is operating with magical effect upon our county.

## RAILROAD DECISION—APPROPRIATION OF LAND.

The following are the points held by Judge Kennon, in a decision on this question, Jan. 19, in the Supreme Court of Ohio. Present, Thurman, Chief Justice; Ranney, Bartley and Kennon, Justices:

*The Atlantic and Great Western Railroad Co. vs. Francis Campbell.*—Petition in error to reverse a judgment of the Court of Common Pleas.

The opinion of the Court was delivered by Kennon, J. Held,

1. That in a proceeding to appropriate the land of a person for the use of a railroad company, the owner of the land proposed to be appropriated in a competent witness to testify in his own behalf, provided the proceedings have been instituted since the Code took effect.

2. That as a general rule, the opinion of a witness as to the amount of damages which the landholder will sustain by reason of the construction and use of a railroad, is not in evidence.

The verdict of the jury is set aside, and the judgment of the Court of Common Pleas reversed.



# Newport Iron Works,



OPPOSITE CINCINNATI, OHIO.

The above establishment is now manufacturing **Locomotive Tyre, Locomotive Car and Tender Axles, Boiler, Tank and Sheet Iron.** For all of which they are prepared to execute orders promptly and satisfactorily. They particularly solicit orders from Railroad Companies and Builders in the West, for

## LOCOMOTIVE TYRE AND AXLES,

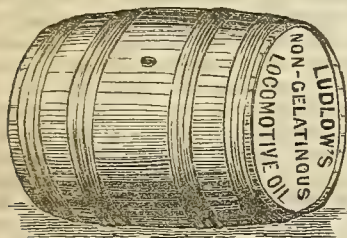
All of which are made from the Faggot, of first class material, and formed entirely under the Hammer. The Tyres are of single weld and finisher equal to any made in the country. All the manufactures of this establishment are branded "NEWPORT" and warranted to give satisfaction. The patronage of Customers in the West is solicited. Samples of manufacture may be seen, and orders addressed to

A. S. WINSLOW, 9 and 11 West Second St., Cin., or to DANL. WOLFE, at the Works, Newport, Ky.

JANUARY, 1856.

## W. D. LUDLOW'S

COMPOUND, NON-GELATINOUS LOCOMOTIVE



## LUBRICATING OIL.

THIS Article is a combination of Lubricating Oils, comes cheaper than any other Pure Oil. Warranted not to chill in any Climate, and is purely non-gelatinous.

Office No. 19 Front St. East of Broadway, Cincinnati, Ohio

WM. R. FEE,  
P. W. FEE,

M. GOODMAN  
F. GOODMAN.

## FEE, GOODMAN & CO.

MANUFACTURERS OF

## NON-GELATINOUS OILS,

For Locomotive Head Lights, Machinery, &c.

CORNER OF 3d St. & MIAMI CANAL,  
CINCINNATI, OHIO.

THE great progress made in the improvement and extension of Railroads, Steamboats, Machinery &c., has made the subject of Oils one of great importance. For several years it has claimed the attention of scientific men to investigate and experiment upon the various kinds of Vegetable and Animal Oils, in order both to supply the want of, and supersede the best article now in use, which is Sperma Oil, but hitherto it has been without success. We have at length, by a process discovered by ourselves, succeeded in removing the gelatinous matter from all kinds of Oils, which has been the great desideratum to be obtained, and now have made extensive preparations for the manufacture of

## NON-GELATINOUS OIL.

This Oil is equal to, and much less expensive than Sperma, and will remain fluid at as low a temperature, and give as bright white, and pure light, as any other pure burning Oil now in use.

We are also manufacturing a NON-GELATINOUS LOCOMOTIVE LUBRICATING OIL, which is pronounced by all who have used it, to be superior to any other. It is not only superior, but is cheaper, and has none of those injurious qualities, which eat and destroy machinery as the Combination Oils now in use are liable to do.

This oil is perfectly pure and non-gelatinous, and will not gum nor chill in any climate, and will wear as long as the most costly.

All we ask is, give our Oils a fair trial. We guarantee them to be such as we represent. We refer to the different Railroads and printing Offices of this city, for their success.

Cincinnati, Jan. 31, 1856.

## RAILROAD MAP OF THE UNITED STATES.

THE latest and best Railroad map of the United States, published for this office, is now ready and for sale at the following prices:

|                                                             |        |
|-------------------------------------------------------------|--------|
| Plain Lithograph.....                                       | \$0.50 |
| Colored Boundaries.....                                     | 0.75   |
| Backed with muslin and varnished ready for<br>mounting..... | 1.50   |
| Mounted.....                                                | 2.00   |

Any one enclosing to us the above amount will receive a copy of the map by return mail.

T. WRIGHTSON & CO.  
Publishers R. R. Record,  
167 Walnut st., Cin., O.

Jan. 31, '55]

### Railroad Printing.

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks. Our patent Card Press, enables us to supply a demand at Short Notice and in Unequalled Style. Also, Blank Books, ruled to any pattern, with or without Printed Headings, and bound in the most substantial manner.

With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

T. WRIGHTSON & CO.,  
Railroad Record Office, 167 Walnut St. Cin.

## Third St. Stock Exchange.

36 West Third Street, Cin.,

J. L. HICKMAN & CO.,

Stock and Real Estate

## AUCTIONEERS AND BROKERS,

Sales Daily, at 12 o'clock A. M.

J. L. HICKMAN & Co., are prepared to make Advances negotiate Loans on Stocks, Bonds, Mortgages, business paper, and other securities.

At Private Sale, a choice variety, of Stocks, Bonds, etc.

## RAILROAD MAP OF UNITED STATES

NOW READY.

A NEW RAILROAD MAP of the United States is now ready, and for sale, by

E. MENDENHALL.  
3 College Hall, Cincinnati, O.

## TEXAS

Western Railroad Agency,

Office 73 West Third st., Cin., O.

SAMUEL A. SARGENT, AGENT.

IN answer to the numerous inquiries by letter and otherwise, as to how long the opportunity will be afforded for procuring the stock of the Company at the present limit of five per cent., and also to the inquiries for other and general information in relation to the Road and condition of the Company. I would state that there remains of the \$25,000,000 (gross amount) of Stock authorized to be issued at the five per cent. limit, less than \$8,000,000 unsold. That, in the event of its becoming necessary to issue more Stock than this amount, which will only be in case of an entire exhaustion of all the other means of the Company, and in that case it is not to be issued at any less assessment than fifty cents on the dollar, and this Stock to share equally only with the other in the dividends and profits of the road and lands.

The capital stock of the Company is divided into shares of one hundred dollars each, and each certificate contains the statement of the fact, that no further call or assessment over or beyond the five per cent. can or shall be made on the stock represented by the certificate. Certificates of stock are issued on the payment of two per cent., and the balance to make up the five per cent., is payable in instalments of half of one per cent. each, on the first Mondays of July and January each year, until January, 1859. Those paying two-and-a-half, or the whole five per cent., are entitled to interest at seven per cent. on the actual amount paid until dividends are paid from the earnings of the Road, which will be made on the whole amount or face of the certificate of stock.

The Company have donated to them by the State of Texas, 10,240 acres of land per mile, for every mile of road built, to receive their first lands (250,000 acres,) immediately upon the completion of the first twenty-five miles, and afterwards as they proceed with the work every five miles, until the whole road through Texas to El Paso, 783 miles, is completed. The lands to be selected by the Company, along the line of the road, or anywhere within a breadth of 60 miles each side of the road. It is believed these lands will be more than sufficient for the building and equipping a first class Railroad through the State. And as the stockholder has an equal interest in the lands as well as the road, a large surplus may reasonably be expected from the sale of the surplus lands.

The grading of the entire road from a point twenty miles west of Shreveport, on the eastern line of Texas where it intersects the Vicksburg and Shreveport road to El Paso on the Rio Grande, 783 miles, is now under contract to responsible and efficient contractors. The work has already been commenced and now being rigorously prosecuted with a large force. This road is located on the line of the most direct and practicable route towards California, being near the latitude of 32 deg. The estimated cost of construction for a railroad on this latitude is ascertained from actual surveys and estimates, made by order of Congress, at great expense, and published by the Secretary of War in his late report, to be far less than any of the other five different routes to the Pacific.

And the estimate of Col. A. B. Gray, who recently surveyed this route, is less than \$25,000,000 from El Paso, 821 miles, to San Diego, one of the best harbors on the Pacific Ocean. The road on this route would be entirely free from any obstructions of ice or snow the whole year. With these superior advantages, it cannot be doubted that the Pacific Railroad, which has now become an acknowledged necessity for the country, will be constructed on this route, and at an early day. When it is considered that the thorough business required on this road when completed, must, from necessity, far exceed any other road in this country—that it passes through a fine agricultural and grazing country—unequalled in climate—that the Illinois Central road has been built under the same system of land grants as this, with only about 1/3 the quantity of land granted to our road—that the stock of that road is now selling at from 90 to 95 cents on the dollar—it is confidently believed the net profits to the stockholders of the Texas Western Railroad Company will largely exceed those of any other Railroad Company ever chartered in the United States.

I would further state that the stock is being disposed of rapidly, and those persons who contemplate securing it at the present rates, would do well to do so at once, as they may soon find they will be obliged to pay large advances on the Company's rates.

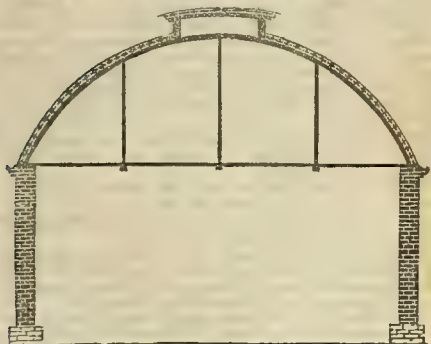
Pamphlets containing the charter of the Company and extracts from the report of the Secretary of War, upon the survey of five different routes to the Pacific, accompanied with a map, and also Col. A. B. Gray's report in full of the survey of the route, of latitude 32 deg. can be procured by application at the office.

Jan 31-1856

SAMUEL A. SARGENT.



## MOSELEY'S Tubular Wrought Iron ARCH ROOFS.



OFFICE, NO. 57, WEST THIRD ST.  
CINCINNATI, OHIO.

The supporting parts of these roofs are made in the same manner as Moseley's

### TUBULAR BRIDGING.

The tubes are light and of immense strength, capable of bearing twenty times more burden than will ever go upon them. Such roofs can be built in less than half the time, weigh much less, and cost less than any plan of Iron Supporting now in use, and no more than good wooden Trusses; besides, this plan of roofing gives a fine architectural appearance, is all iron, and proof against injury to walls, etc. by expansion and contraction. We are prepared to manufacture roofing, after this plan of any size and span, in any and all parts of the country, on the shortest notice.

MOSELEY, WINSTON & MOSELEY.  
THOS. W. H. MOSELEY.

Sup. and Engineer.  
JOHN BARNUM & CO.  
Special Contractors

January 1st., 1856]



**BANK NOTE ENGRAVING**  
DANFORTH, WRIGHT & Co.,  
No. 25 West Third Street, Cincinnati.  
Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

Rawdon, Wright, Hatch & Edson.

BANK NOTE  
ENGRAVERS AND PRINTERS.

Also, engraved in a style corresponding in excellence with that of Bank Notes.

RAIL ROAD, STATE, AND COUNTY BONDS,  
BILLS OF EXCHANGE, CHECKS.

Drafts, Certificates of Stock and Deposit, Promissory Notes, Bill and Letter Heads, Visiting and Professional Cards, Notarial Certificates and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.

## U. S. RAILROAD DIRECTORY, FOR 1856,

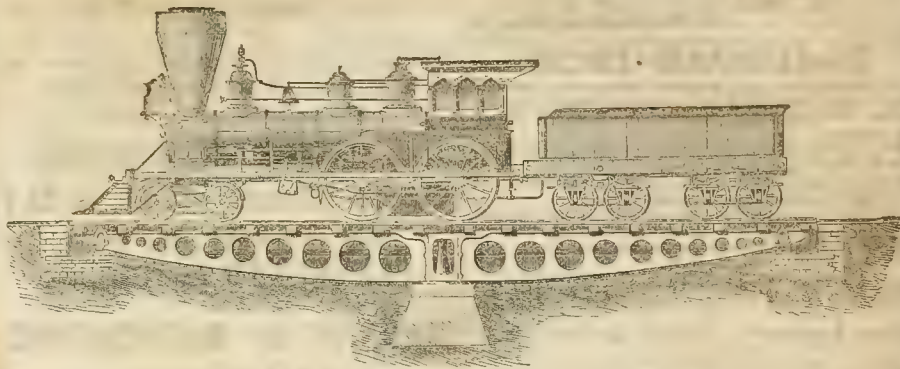
TO contain the names of the Presidents, Directors, and officers of every Railroad in the United States, as far as the same can be ascertained. Also, a general alphabetical list of the roads, and lists arranged according to States, showing their format and length. 1 vol. 8 vo., of about 200 pages. Price, one dollar.

In press, and will be published soon. Orders may be addressed to

B. HOMANS,  
Box No. 4574, Post Office,  
New York

Jan. 31, 1855]

## William Sellers & Co. —LATE— BANCROFT & SELLERS,



16th Street and Pennsylvania Avenue, Philadelphia,

MANUFACTURE RAILWAY, TURNING and SLIDING TABLES, and PIVOT BRIDGES, upon a new and economical plan and of any required length. The Turning Tables and Pivot Bridges are fitted with Parry's Anti-Friction Box—thus enabling one man without the intervention of gearing to turn the largest table when loaded with Engine and Tender. Being of iron they are not liable to get out of order, and water within 18 inches of the track, will not impair their efficiency or durability.

### ALSO :

BANCROFT'S PATENT SELF-ADJUSTING HANGER and PILLOW BLOCK BEARINGS suitable for all kinds of Shafting or Mill gearing. A large supply of this article kept constantly on hand, arranged so as to attach to upright posts, suspended to the under side of beams, to rest upon foundations, or adapted especially to counter-shafts for looms, or other machinery. Cast Iron Ground Stone Boxes, fitted with rolls bearing and resting on wheels for convenience of moving, also kept constantly on hand. Having probably the largest stock of Pulley Patterns in the country, they are prepared to furnish castings or finished pulleys at short notice, as, also, shafting, couplings, gear wheels, &c., suitable for all manufacturing purpose fitted up ready for use.

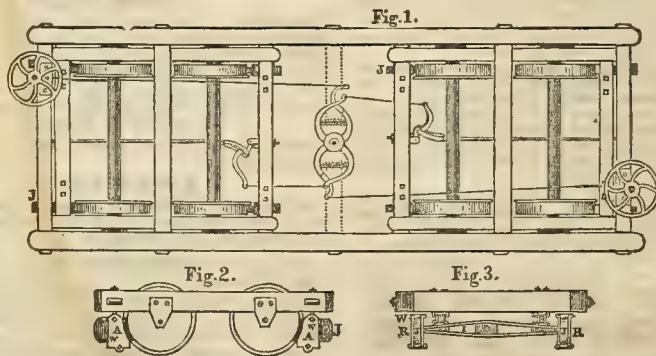
They also continue to manufacture of their well-known class of *Engineers and Machinists' Tools*; such as Horizontal Planing machines, Vertical Planing machines, Lathes, Boring and Turning Mills, Boring Mills, Horizontal drills, Vertical drills, Bolt Cutting machines, &c.

WILLIAM SELLERS.

JOHN SELLERS, JR.

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (B, seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (1) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, or any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms, for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire Hudson River & Harlem Railroads.

J. P. BEELEY, Agent, Cavendish, Vt.



## PRINTING.

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

## RAILROAD IRON.

The undersigned are prepared to contract for the freightage of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via. Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired, WALKER & BERRY, Quebec & Kingston, Canada. BERRY & WALKER, Liverpool, England. Kingston, C. W., Sept. 15, 1855.

## PERU &amp; INDIANAPOLIS R. R.

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers.

Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Frght. Ag't  
Indianapolis, October 1, 1855

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted,) each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 9.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

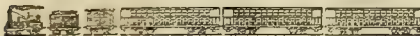
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1855. Sept. 29-1f.

## Terre Haute &amp; Richmond R. R.



## Summer Arrangement.

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.) Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

## TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855. E. HUKSTIN Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS IN OHIO.

Time as short to the Eastern Cities, as well as to Chicago and St. Louis, and Fare as Low as by any other Routes.



## Great Miami, [C. H. &amp; D.]

MAD RIVER AND LAKE ERIE,

CLEVELAND &amp; TOLEDO,

AND

## EATON &amp; RICHMOND

## RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

## FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo, Chicago, and Cleveland—Same train connects at Dayton for Greenville, Union, &c., and at Forest for Lima, Delphos and Fort Wayne. This is the only direct route to the above places.

Passengers for the East take the cars of the Cleveland and Toledo road at Clyde, go into the same depot and make the same connections as by the Columbus route. As the Lake Shore roads depends more upon the trains from the West for their travel, and as this train makes sure connection at Clyde, passengers are less liable to miss the connection at Cleveland than by any other route.

(This train starts by Columbus time which is seven minutes faster than Cincinnati.)

Passengers by this train, breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

## SECOND TRAIN.

Indianapolis Express, at 5 A. M., for Indianapolis, and all points North and West.

(This train also starts by Columbus time.)

## THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest and Bellefontaine for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua, also to Greenville, Union, &c.

## FOURTH TRAIN

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

## FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

## SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

RETURNING.—Trains leave Dayton as follows: at 5.15 and 7.45 A. M., 3.45 and 7.25 P. M.

Trains leave Richmond at 7.00 and 10.30 A. M., and 6.40 P. M.

Trains leave Hamilton at 5.54, 6.40 and 9.00 A. M., and 2.30, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Sup't. C. H. &amp; D. R. R.

E. F. OSBORN Sup't. M. R. &amp; L. E. R. R.

E. B. PHILLIPS, Sup't. C. &amp; T. R. R.

D. M. MORROW, Sup't. L. E. &amp; R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m

New York, Aug. 18th, 1855.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena &amp; Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON &amp; DAYTON, AND EATON &amp; HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.  
TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,

LAFAYETTE, PERU, &amp;c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indiana, and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute. Via Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM. H. SMITH, Conductor.  
feb. 8-ly WnRROpeSate M MterODn i.pn

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana, May 11.

## GEO. D. WINCHELL &amp; BRO.,

172 Elm Street, between 4th &amp; 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION &amp; FORCE PUMP

AND

## Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; we have adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y



## Baltimore &amp; Ohio Railroad.



## 380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and was already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Belleair on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

FOR PASSENGERS BY THIS ROUTE,  
Through Tickets from all Parts of the West,

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

For Sending Travelers Direct to  
WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and  
other ATLANTIC CITIES.

## FOR FREIGHTS IN EITHER DIRECTION

The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

## Philadelphia and New York Railroads,

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation,  
je. 84 Baltimore.

TO LOUISVILLE  
IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

## OHIO AND MISSISSIPPI RAILROAD.



ON MONDAY, JULY 16TH, AND UNTIL FURTHER NOTICE, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M., and 10 P. M.

FREIGHT—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.

Omnibuses run from the principal hotels, and call on orders left at the Ticket Offices.

Omnibuses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House

LOCOMOTIVES FOR SALE.  
OFFICE VIRGINIA LOCOMOTIVE AND CAR  
MANUFACTURING COMPANY.

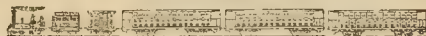
Alexandria, Va.

FOR SALE.—Six Coal Burning Freight Engines, 20 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, THATCHER PERKINS,  
President.  
Also, for sale, two Twenty Horse Power Stationary Engines. Aug. 9 4t

1856. Winter Arrangement, 1856  
COMMENCING MONDAY, JAN. 7.LITTLE MIAMI RAILROAD,  
VIA COLUMBUS.  
EXCLUSIVELY AN EASTERN ROUTE.

The Quickest—Shortest—Most Direct

Lightning Express through to Columbus, Crestline, and Cleveland, without change of cars. By any other route passengers and baggage change cars.

The only route with three daily trains to Cleveland, Dunkirk, and Buffalo, by the uniform gauge and without ferries.

The only route with reliable connection to Pittsburgh. The only route to Wheeling and Steubenville.

BY 6 O'CLOCK A. M. TRAIN.

Wheeling Passengers Dine at Zanesville.  
Pittsburgh Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland, and dine the following day in New York, Philadelphia, or Washington City. Breakfast at Baltimore.

## Time via Little Miami Route from Cincinnati

|                         |             |
|-------------------------|-------------|
| To Columbus in.....     | 3 3/4 hours |
| To Cleveland in.....    | 7 1/2 "     |
| To Dunkirk in.....      | 14 1/2 "    |
| To Buffalo in.....      | 16 "        |
| To Albany in.....       | 26 "        |
| To New York in.....     | 32 "        |
| To Boston in.....       | 35 "        |
| To Crestline in.....    | 16 "        |
| To Pittsburgh in.....   | 16 "        |
| To Philadelphia in..... | 30 1/4 "    |
| To Wheeling in.....     | 10 "        |
| To Baltimore in.....    | 26 1/4 "    |
| To Washington in.....   | 29 "        |
| To Steubenville in..... | 12 "        |

Baggage checked from Cincinnati to Wheeling, Baltimore, Pittsburgh, Cleveland, Dunkirk and Buffalo. The Little Miami is the eastern Depot.

## FOUR DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for all the Eastern cities.

ALSO: Springfield and Delaware; Circleville, Lancaster and Zanesville, Blanchester and Chillicothe.—This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

Through to Columbus, Crestline and Cleveland without change of cars.

SECOND TRAIN.—Express Mail, leaves Cincinnati at 10 o'clock A. M., for all the Eastern cities. This train stops at all points between Cincinnati and Columbus.

THIRD TRAIN.—Accommodation, leaves Cincinnati at 3.30 o'clock P. M., for Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsboro. This train stops at all points between Cincinnati and Springfield.

FOURTH TRAIN.—Cleveland, and Pittsburgh Night Express, leaves Cincinnati at 6 P. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

## THROUGH TICKETS.

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office south-east corner of Broadway and Front streets, opposite Spencer House, or at the Eastern (Little Miami Depot, East Front street.

Office hours from 4 1/4 A. M. until 9 1/2 P. M.

P. W. STRADER, General Agent

## THE OMNIBUS LINE

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

jan 18.

H. B. RUGGLES, Conductor

## Insurance Agency.

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

DWELLINGS, STORES, WAREHOUSES,  
and their contents,

STEAMBOATS, BARGES,  
and their Cargos.

Manufacturing Establishments,  
Railroad Depots and Station Houses,  
at current rates.

L. A. OSTROM,

vg. 16. No. 6 West Third Street, Cincinnati.

## Covington and Lexington Railroad.

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST. Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terre Haute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at LEXINGTON at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryantsville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.20 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

FREIGHT TRAINS will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

## RATES OF FARE.

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthia.....    | 2 00   |

## FOR THROUGH TICKETS

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent.

THE Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, betw Madison and Scott, Covington.

CLAYTON &amp; GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road.

nov. 15\*

## W. G. ATKINSON,

Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated Maps and Reports furnished; Researches made for

Coal, Iron, Copper, Lead, or other Minerals,  
Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared.

mar. 15

## RAILROAD IRON.

## LOCOMOTIVES.

4,000 Tons rails, 58 to 61 lbs. per yard. 200 tons rails 49 lbs. per yard. 1,000 tons rails 55 lbs. per yard. Also: several Locomotives of best manufacture, of any required weight and adapted to any gauge, for sale by

H. H. GOODMAN &amp; CO.,

Feb. 7. '56-2m.] no. 7 Wall st., N. Y.

Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.

VIA LAWRENCEBURG,

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 6:20 and 2 P. M. Trains, both connect through via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.  
Office, 31 Main Street, west side, 5 doors north of Madison House.  
Cincinnati, Jan. 1, 1856. SIDNEY RICE, Agent.



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.  
LOUISVILLE.

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Snapping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

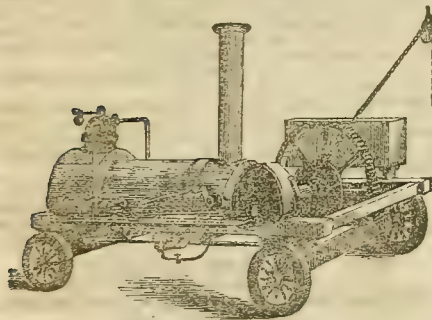
Communications or orders must be addressed to  
OLMSTED, TENNIS & PECK,  
Louisville, Ky.

**Norris' Locomotive Works.**

PHILADELPHIA.

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY**  
Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.  
Jy. 27. RICHARD NORRIS & SON.

**A. L. ARCHAMBAULT'S**  
PORTABLE STEAM**HOISTING & PUMPING**  
ENGINES;

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor  
A. L. ARCHAMBAULT,  
S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Franklin's Alley), Philadelphia. aug 26m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

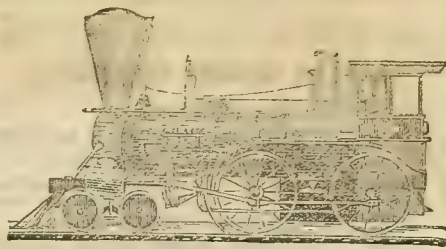
Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MESSRS. DEAN, FELTON and TILTON.  
Manufactured by J. M. BROWN,  
At Kirrups Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.  
Feb. 12 1855 6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in  
**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 per cent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs ONE TENTH part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

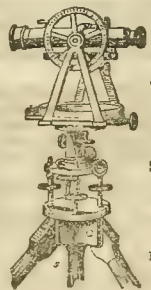
The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHEKURNE,

PRINCIPAL AGENT,

May 1846.6\* Office, No. 64 Courtland st., New York.

**MATH-MATICAL INSTRUMENTS.**

T. F. RANDOLPH & BRO.,

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d Story APOLLO BUILDING,  
CINCINNATI, O.,

MANUFACTURERS OF  
**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery.**

THIRD STREET, (west of Burnet House.)

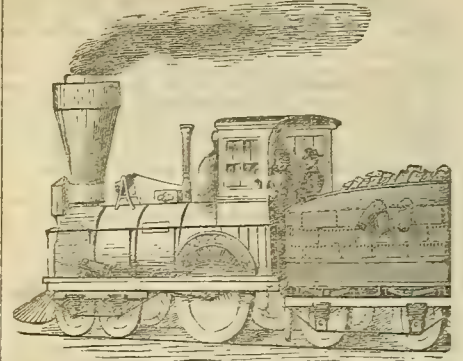
CINCINNATI, OHIO.

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames' Tire and Crank Axles, Chairs and Spikes. Locomotive Head Lights, (of several makers) Car, Conductor's Signal, Switch, Stoker and other lanterns. Drawbridge and cross Road signal lights; Gun Packing and Hose, assorted Car Trimmings, Enamelled head and seat Linings, Plated and White Metal Letters.

—ALSO—

Machinists' Tools, particularly adapted to Railroad Work, Mill Work, Shafting and Shop outfits, Punching and Shearing Machines, for Boiler Work; Planers, Lathes, Drills, Portable Forges, etc., etc. Oak-Tanned Belting, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Planing and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.  
ap. 20 MOORE & RICHARDSON.

**WASON'S**  
**CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

CLEVELAND, OHIO.

Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,  
Late of the firm of T. & E. Wason, Springfield, Massachusetts

**Railroad Car Findings**  
**BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

Wheels & Axles, Jaws, Boxes, and Casting Fil

Wrought Nuts, Bolts, & Washers,

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,**  
From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**  
Of any required width to 124 inches.

**ENAMELLED HEAD LININGS**  
Flush and Curled Hair.

Hand Cars and Baggage Barrows. Passenger, Freight, Car, and Switch Locks, Door Krobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Various Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

Portable Forges and Jack Screws.

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Enamelled and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES,

Late Davenport & Bridges, Car Manufacturers,

Cambridgeport, Mass.

ALFRED BRIDGES,

Late Davenport, Bridges & Co., Fitchburg, Mass.

toct

**CAR MANUFACTORY,**  
Dayton, Ohio.

THE TRESHER & CO. having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

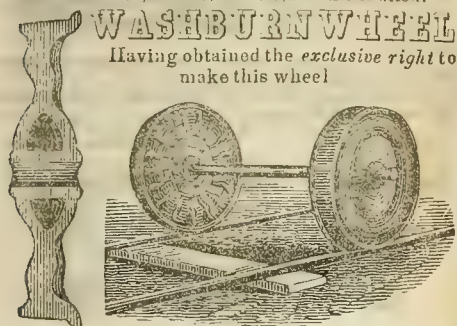
They also manufacture blacksmith rollers, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wire presses; wood planers; turnouts and boring machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment at  
Dayton, Jan 24th, 1863. Jan 26-4



### FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.

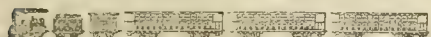


**WASHBURN WHEEL**  
Having obtained the exclusive right to make this wheel

In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address **KECK & HUBBARD,**  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

### MUSKINGUM WORKS, ZANESVILLE, OHIO.



**DOUGLASS, SMITH & CO.**

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars.

We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

**DOUGLASS, SMITH & CO.,**  
Muskingum Works, Zanesville, O.

J. DAVENPORT. . . M. D. WELLMAN. . . C. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

### Railway Car Manufacturers MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wellman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16/77 **JOSEPH DAVENPORT.**

### S. C. THOMSON & CO.,

MANUFACTURERS OF

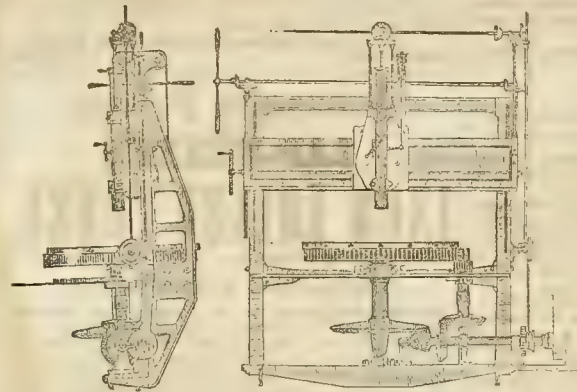
### PATENT PAD LOCKS,

For Railroad Switches, Merchandise Cars, Stores, Cemeteries, Iron Safes, &c.,  
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## NILES' WORKS.

### FOUNDERS AND MACHINISTS,

EAST FRONT STREET, CINCINNATI,



Manufacturers of  
**TYRE LATHES,**  
Of the most approved plan.

**HORIZONTAL  
FACE PLATE LATHES,**  
OF VARIOUS SIZES, TO SWING  
From 40 inches, to 12 feet.

**PLANING MACHINES**  
LARGE & SMALL.

### MARINE & STATIONARY ENGINES.

BOILERS OF EVERY DESCRIPTION.

### HEAVY FORGINGS,

IRON AND BRASS CASTINGS, &c., &c.

### ALBERT M. SMITH'S PATENT PREMIUM RECLINING & SELF-ADJUSTING CAR SEAT



For a Night and Day High or  
Low-back Seat, combined in one,  
PATENTED AUGUST 21. 1855.

It was awarded two first premiums, a Gold Medal, at the great Fair at the "American Institute," held at N. York and a Diploma at the State Fair, held at Elmira, N. Y., 1855.

This valuable improvement is adapted and can be applied at a very trifling expense, to the ordinary seat now in use, without impairing its present qualifications as a day seat, and a new seat provided with it, and made in single seats, costs no more than the ordinary seat.

By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects

the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other.

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of **ALBERT M. SMITH, Patentee and Manufacturer,** dec20-ly 13 North St. Paul st., Rochester, N. Y., or **TAULMAN & LOW, 157 Broadway, N. Y.**

### ALBERT M. LEA,

CIVIL ENGINEER,

KNOXVILLE, TENN.

toc27

### D. D. MILLER,

Manufacturer of

LOCOMOTIVE, RAILROAD AND HAND

LANTHERNS,

190 Water Street New York.

### IRON BOILER FLUES. PASCAL IRON WORKS.

### MORRIS, TASKER & CO.,

Manufacturers of

**LAP-WELDED BOILER FLUES,**  
1½ to 7 inches outside diameter, cut to definite lengths, as required.

**WROUGHT IRON WELDED TUBES,**  
From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA.



## Parry's Anti-Friction Box, PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to  
JOHN RICE & CO., Patentees.

90 South Fourth street, Philadelphia.

### READ THE FOLLOWING CERTIFICATES.

OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,  
Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation  
WILLIAM B. FOSTER, Jr.,  
Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENNA. R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,  
H. J. LOMBAERI, Superintendent.  
ENGINEER DEPARTMENT, NORTH P. A. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.  
Reading, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful inventions; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,  
Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

Geo. T. PARRY, Esq.—Dear Sir—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turn-tables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,  
STRICKLAND KNEASS, Civil Engineer.

## London Agency for Sale of Bonds &c.

Messrs LANCE & Co. are making more generally known in England, the great advantages of American securities for investment.

During the present year Messrs Lance and Co. have disposed of a large amount of American and Canadian Railway Bonds, and are last extending their connections. They will be happy to correspond with parties having good American Securities for sale.

Messrs LANCE & Co. have had experience in the purchase and shipment of Iron, and offer their cooperation to those about to negotiate for the disposal of Bonds and the purchase of Rails.

P. S. Presidents of Railway Companies are requested to favor Messrs L. & Co. with Exhibits or Reports of their Companies as published.

10, Regent street, Waterloo Place, London,  
October 1855. nov.15-6m.

## Prosser's Patent. LAP-WELDED IRON BOILER TUBES,

Every article necessary to

### DRILL THE TUBE-PLATES

and to Set the tubes in the best manner. Tube Cleaners, Steal-Wire and Whalebone Brushes, Tubes for Artesian wells, Pump Shafts, Line Shafting, conveying Steam or Water, &c., &c., screwed together, flush on both sides, or with couplings either outside or inside; also expanded into Flanges. Free Joint Tubes for Core Bars, Railings, &c., Pall Lever Wrenches and Wrought Iron Blacksmiths' Tyes.

Agents for Krupp's celebrated Cast Steel for Shafts, Railway Axles, Tires, Plater's Rollers, Rifle and Gun Barrels, Cannon, &c.

THOMAS PROSSER & SON,  
28 PLATT STREET, New York.

## THE SCHENCK MACHINERY DEPOT AND

### Leather Banding Manufactory,

No. 163 GREENWICH STREET,  
NEW-YORK,

KEEPS constantly for sale, Tools suitable for Railroad Repair Shops, and having connection with some of the largest establishments at the East, is prepared to furnish Tools of any description. Also the principal Manufacturer of the justly celebrated Woodworth's Patent Planing Machines in forty different varieties. Slide and Hand Lathes, Iron Planing Machines, Sash and Tenoning Machines, Mortising Machines, Upright Drills, Chucks, Steam Engines, and Boilers, Pumps of various kinds, &c., &c.

### Oak-tanned Leather Belting,

Patent Stretched, with the machinery, and cemented and copper riveted. Warranted superior to any made. Orders respectfully solicited.

A. L. AUKERMAN, PROPRIETOR

Aug. 9 1y

## SODA WATER APPARATUS!

### THE ONLY PATENT CAST IRON SODA WATER APPARATUS

IN THE UNITED STATES,

(Patented June 12, 1855.)

### FOR MANUFACTURING SODA WATER!

Also, every description of Apparatus, either for Drawing or Bottling of Soda Water. Also, the new SELF-TIGHTENING FAUCET, for water or any kind of Liquids, (Patent applied for 1855,) can be made of Brass, Lead, or any other metal, and Silver-Plated. It cannot be left open by carelessness or by children, nor be easily broken. It will out-wear any other Faucet now in use.

Also the new LUBRICATING APPARATUS, (Patent applied for 1855,) for oiling Valves and Cylinders and Throttle Valves of Steam Engines, Locomotives, Steam Pumps, &c. This Apparatus is Transparent, Self-Feeding, and not easily got out of order. It has a Glass Cylinder on the inside of a brass case, which holds the oil, and can be seen at any time when the oil is out. It will do either for Steam Vacuum or Journals. It is the best thing that could be made for Locomotives.

STEAM GAUGES on a new principle, manufactured and sold by

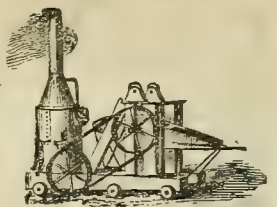
WILLIAM GEE,

Dec. 5, 1855-1y

68, Fulton Street, New York.

## "GARDNER'S ROCK DRILL."

DESIGNED for Mining, Tunneling, Quarrying use, and Rock Excavations of all descriptions, by the use of which a saving of 50 to 75 per cent. is made. This drill can be operated by hand, horse, or steam power and works equally as well horizontally or at any angle, as perpendicularly.



A silver medal, the highest prize, was awarded these Machines at the World's Fair.

Applications for Territorial Rights and Machines must be made to the Patentee.

nov17+

G. ARTHUR GARDNER,  
Trinity Building, N. York.

## Important to Railroad Companies, etc.



### Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, after, by means of this valuable discovery, manufacturing

### RAILROAD FROG-POINTS, Lathe Mandrels, Gauges

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,  
15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

## RICHARDSON'S PATENT



For Locomotive and Stationary Engines. For sale by  
BRIDGES & BROTHER, Agents,  
May 17. 64 Courtland St., New York.

## General Map Establishment, No. 3 College Hall, Walnut St., Cincinnati

### E. MENDENHALL, MAP, BOOK & PRINT SELLER,

Has constantly on hand  
GUIDE BOOKS OF ALL KINDS, SCHOOL APPARATUS, AND  
OUTLINE MAPS.

Anatomical Charts, Atlases and Gazetteers,  
Geological and Astronomical Charts, Globes,  
MICROSCOPES, TELESCOPES  
DRAWING INSTRUMENTS, &c.

Publisher of the  
Railway Map of the Western States,  
In Sheet or in Pocket Case;  
The LARGE SECTIONAL and RAILWAY MAP OF OHIO  
the LARGE MAP OF CINCINNATI, and HAMILTON CO.  
OHIO, and the TOWNSHIP MAPS OF INDIANA and IOWA  
MAPS OF EVERY DESCRIPTION.



# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, } Associate Editors.  
T. WRIGHTSON, }  
DAVID CHRISTY, Geological Cor'dent.

CINCINNATI:

THURSDAY MORNING,.....FEBRUARY 14, 1856.

OUR EUROPEAN AGENTS FOR THE RAILROAD RECORD ARE  
MESSRS. ALGAR & STREET, of the London Provincial  
and Colonial Newspaper Advertisement Office.  
No. 11 Clement's Lane,  
London, England.

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OHIO AND MISSISSIPPI R. R.—The City Council of Cincinnati have passed an ordinance conceding certain conditions asked for by the company of gentlemen formed in New York to complete the road. We presume that this will enable the new company to go forward and complete the road.

OBSTRUCTING THE TRACK—INADEQUATE PUNISHMENT.—Of all the wicked, reckless crimes that men are guilty of, that of obstructing a railroad track is one of the most heinous. The wretch that can, in cold blood, endanger the lives of hundreds of human beings, who have never injured him, must be dead to every common feeling of humanity, and lost to the common sympathies of his race. Yet the punishment meted to such villains is hardly as severe as that for an ordinary theft. At a recent trial in Wisconsin, the culprit was sentenced to one year's imprisonment in the penitentiary only. The lives of travellers will never be secure till some more severe punishment is inflicted for such crimes as these.

### THE RIVER OHIO—ITS PHYSICAL FEATURES AND MEANS OF IMPROVEMENT.

In the year 1852, Mr. CHAS. ELLET, one of the most eminent Engineers in America, made a report to the War Department, on the physical character of the Western rivers and their means of improvement. In the following year, 1853, this memoir was published in Philadelphia, and is one of the most valuable scientific documents which has been furnished to the country in many years. It was noticed in the *Record* (vol. 1 page 145), and we refer to it now in connection with the effort of Mr. COPLEY before the Pittsburg Board of Trade, and in other cities, to revive an interest in the improvement of the Ohio. The plan of Mr. Copley, is to *Lock and Dam* the Ohio, which will require about fifty dams at 20 miles apart. It is said that these will cost about *seven millions*, that they will *stand* the floods, and that they will make navigation *uniform*. Two questions, however, may be asked in reference to this mode of improving the Ohio:

1st. Supposing the locks and dams, to make the Ohio navigable—at the lowest stages of water—what effect will they have at *moderate* stages? Supposing them necessary, at the low stage, and that at the high stage boats will pass over them—will the boats not have to pass through them *at the moderate stage*? If they do, will not these locks and dams be *positive obstructions* in the moderate stage? We do not decide the case; but, ask these questions, that they may be duly considered.

2nd. Can the States, by charters, impair the National sovereignty over the Ohio? Ought the people to yield the navigation of a river, a thousand miles in length, to a commercial company? It seems to us, that a lock and dam in the Ohio, would be enjoined and removed by the Supreme Court.

We say not these things to impede or discourage any proper improvement of the Ohio river; but, to point out some of the difficulties in the way, that they may fairly be met. For example, the period, in which the Ohio is navigable, at a depth of water from five to ten feet, is double as great as all the residue. Now is it not evident, that at that period, the boats which we now see running so freely, will have to pass the locks, and therefore be greatly obstructed. In other words, the obstruction will be greater, than the benefit. The Monongahela has been referred to as an example of successful locks and dams. But this is no parallel case to that of the Ohio. The Monongahela is comparatively quite a small stream. But, independent of that, it so happens that the Monongahela has the *least descent* of any of the tributaries of the Ohio and the Mississippi. The Muskingum has also been improved with locks and dams; but, only three steamboats run on it, and the locks have often given way. These are, therefore *not* examples in point.

The plan of Mr. Ellet, based on long and accurate scientific observation, and measurements was very different. He proposes to *maintain a sufficient depth of water*, for navigation, at all seasons without locks or dams. Now if this can

be done, there is hardly a doubt that it is the best plan. For in that case the *obstructions* inevitably thrown in the way, by locks and dams, would not exist. Mr. Ellet's plan was simply four or five *dams* on the *tributaries* of the Ohio—the Allegheny, Monongahela and Kenawha—by which water enough would be retained in reservoirs to maintain a navigable depth of water at the dry seasons. Now that this plan is practicable is demonstrated from certain established facts. As there seems to be much want of scientific information on this subject, we will state the leading facts and the consequences deduced from them:

1. DRAINAGE OF THE OHIO.—The very first thing to be known, in any attempt to improve the Ohio, is the amount of drainage. The following has been ascertained to be the drainage of the Ohio, at different depths:

| Depth on Wheeling Bars. | Velocity.   | Cubic feet pr. hr. |
|-------------------------|-------------|--------------------|
| 2 feet.....             | 3,500 feet. | 10,000,000 feet.   |
| 15 ".....               | 16,500 "    | 226,000,000 "      |
| 30 ".....               | 24,000 "    | 700,000,000 "      |

That is, at fifteen feet deep on Wheeling bar, the current runs at *three miles per hour*, and discharges more than *two hundred millions of cubic feet per hour*. So the exact drainage at any given depth is easily ascertained.

2. DEFICIENCIES OF WATER.—Assuming any given depth as necessary to navigation, we know the amount of water requisite to maintain the river at that point. By actual observation on Wheeling bar, it is ascertained that the Ohio actually furnishes water enough to *maintain the current at 5½ feet depth in every month of the year*, except October and September. It is only necessary then to determine how much water is required to supply the deficiencies of these months, to know how much is necessary to give 5½ feet water the year round.

|                                                          |                |
|----------------------------------------------------------|----------------|
| The actual discharge for September and October, was..... | 25,760,000,000 |
| To maintain 5½ feet requires.....                        | 52,704,000,000 |

The difference.....26,944,000,000  
is what is required.

3. HOW TO SUPPLY DEFICIENCIES.—The whole quantity of water thus required could be furnished by a reservoir of about three miles square and 100 feet deep, and *three such reservoirs would cost but \$450,000*; (vide Ellet on the Ohio page 280), and the sites for forming lakes of this description, without injury can be found in several places, on the Allegheny, the Kanawha and other tributaries. On the supposition, however, that several of these reservoirs may be necessary and that the cost of the ground may be considerable, it is probable the ultimate cost may reach *two millions*. But what are two millions to the result?

We quote here, the conclusion of Mr. Ellet's remarks on this subject, as conclusive of the whole matter: "It is not appropriate in this place to enter into any detailed estimate of the cost, or description of the mode of constructing such dams. It may be said, however, that they should be formed of massive masonry, set in hydraulic cement, and built more with reference to the part they are to perform, in advancing the commercial prosperity of the country, than with a view to stinted economy. Yet



formed as monuments of the art and enterprise of the age, it is not probable, that the cost of each dam, with its lock, valves, syphons and appurtenances, will exceed \$200,000, or \$250,000.

"It has been the duty of the writer, at former periods, to conduct surveys along a considerable portion of the Upper Allegheny, and the whole of the Great Kanawha, and to become familiar with the character of the Monongahela, as far as it is susceptible of improvement.—Aided by this personal knowledge and the facts acquired in the present investigation, he hazards the opinion, that less than a million and a quarter of dollars will suffice to supply the Ohio with a depth sufficient for boats of five feet draft."

If those who are desirous of making the Ohio river a permanently navigable stream will examine with care, the plan of Mr. Ellet, they will find that it is practicable—that it is cheap, and that its benefit to the commerce of the Ohio will be immense.

Whatever may be adopted as a plan of improvement, for the Ohio, it should be adopted only after a calm and deliberate examination of the whole case.

**SOUTHERN COMMERCIAL CONVENTION.**—We give below the action of this body relative to the Pacific Railroad, and trust that their recommendations will meet with due consideration by the honorable bodies to whom they are addressed.

Gen Green of Texas presented the following preamble and resolutions:

**WHEREAS:** The construction of a railroad from the valley of the Mississippi river to our Pacific coast, is promotive of the development of agriculture, the mines and commerce, the defence of that coast in time of war, and its preservation to the Union in time of peace, Therefore

*Resolved,* That considerations of comparative grade, climate and economy of constructing, maintaining and working the proposed railroad is indicated by the Texas Western Railroad charter, upon the line of 32° North latitude, crossing the entire State of Texas, and intersecting the Rio Grande at or near El Paso, thence by the route lately surveyed by Col. A. B. Gray, South of the river Gila, to the State of California, where said river unites with the Colorado of the West.

*Resolved,* That as said road is now under active construction, it is hereby recommended that the Legislatures and citizens of the southern and southwestern States, aid, by all necessary means, the speedy building of said road, and to unite with the main trunk branches intersecting the Mississippi at New Orleans, Vicksburg, Memphis, Cairo and St. Louis.

It was moved that the House proceed to vote direct on the resolution.

The question was put and the motion was adopted.

The question then recurred on adopting the resolution, and it was decided in the affirmative.

## Railroads.

### THIRTEENTH ANNUAL REPORT OF THE LITTLE MIAMI R. R. COMPANY.

We have before us the annual report of this Company, for the past year. As usual, it is a very interesting document; but, as we intend hereafter, to give an analysis of the entire operations of this Company for ten years, we shall do no more at present, than give a summary of the results in this report. The following are the elements of this road, as returned in the report.

|                                        |             |
|----------------------------------------|-------------|
| Length of main track.....              | 83½ miles.  |
| " of double track and side tracks..... | 32¾ "       |
| Aggregate length of Rails.....         | 116¾ "      |
| Cost of construction.....              | \$3,724,510 |
| Amount of stock.....                   | 2,981,327   |
| Amount of Debt.....                    | 828,000     |
| Aggregate receipts.....                | 678,120     |
| Nett Receipts.....                     | 340,426     |
| Expenses.....                          | 337,694     |
| Profit per cent. per annum.....        | 9.2         |
| Number of passengers.....              | 309,545     |
| Number per mile.....                   | 4,000       |
| Receipts per mile.....                 | \$8,000     |
| Through Passengers.....                | 119,285     |
| Way Passengers.....                    | 190,260     |

Including the Columbus and Xenia Road—making a distance of 137 miles—there are:

|                                 |     |
|---------------------------------|-----|
| Locomotives.....                | 39  |
| Passenger and Baggage cars..... | 55  |
| Freight cars.....               | 440 |
| Hand and Dumping Cars.....      | 61  |

This gives:

|                        |           |
|------------------------|-----------|
| 1 Locomotive to.....   | 3¾ miles. |
| 3 Freight cars to..... | 1 "       |

And this equipment has proved sufficient.

Notwithstanding the deficiency of crops, in 1854, there has been a decided increase in many articles of freight, carried on the Little Miami Railroad. The articles, in which, there has been an increase, are Pork, Beef and Lard Flour, Salt, Merchandise, Grain and Coal; while in Iron, Hay, Lumber and Cattle there has been a falling off.

The freight business seems likely to increase very rapidly, that of passengers more slowly. In the last year there has been a diminution, in the aggregate number of passengers, though an increase in the way passengers. This is, probably, owing entirely to the great length of time, in which the river was open—the passengers from below, for the East, thus passing on up the river to Wheeling and Pittsburg.

One of the noticeable things, in the transactions of this road, is that no passenger has been either killed or seriously hurt. This is a fact worth more than all praise.

**THE DEMOCRATIC PENNANT.**—We have received the first number of the "Democratic Pennant," a daily paper commenced in the flourishing town of Portsmouth, by Messrs. BICKLEY & NELSON. The former we remember as a gentleman of literary taste and talent, and of both we can say, that the first number of their paper is much above the ordinary quality of newspapers. We sincerely wish them all the prosperity which can be achieved in such an enterprise.

From the Railroad Record Supplement.

### THE TEXAS PACIFIC RAILROAD AND ITS ADVANTAGES.

Since the thorough examination of the Texas route to the Pacific, both by the Government Surveyors and by Col. Gray, new facts have come to light, and that line has unquestionably the vantage ground. The reasons upon which it is now preferred, and which rest on incontrovertible facts, are these:

1. Taking the centre of the population of the United States, which is in the Upper Ohio Valley, as a point of departure, and the Texas route is the nearest to a port on the Pacific ocean; and, therefore, the best and most convenient to the greatest number of the population of the United States. This fact is incontrovertible, if the Government surveys are correct. Thus, taking Cincinnati, the center of the Ohio valley, as a point of departure, and we have this result:

|                                                                                         |            |
|-----------------------------------------------------------------------------------------|------------|
| Cincinnati to Chicago.....                                                              | 260 miles. |
| Chicago to Council Bluffs.....                                                          | 449 "      |
| Council Bluffs to Benicia via South West Pass, vide the Government "Explorations."..... | 2,032 "    |
| Aggregate Distance on the latitude of 41°.....                                          | 2,741 "    |
| Cincinnati to Cairo.....                                                                | 350 "      |
| Cairo to Fulton.....                                                                    | 370 "      |
| Fulton to San Diego via El Paso (Government "Explorations.").....                       | 1,559 "    |
| Aggregate on the 32°.....                                                               | 2,270 "    |

Difference in favor of the Texas route 471 miles. The route of the South West Pass is the most favorable one, north of the 32° latitude; so that we need compare with no other. This great difference in favor of the Texas route holds true of Cairo and Springfield Illinois; of Evansville, Madison and Indianapolis, Indiana; of Columbus and Cleveland Ohio; and of all the States south of the Ohio river: so that, to the northwest, as well as the southwest, the Texas route is the shortest and the most truly national. It is equally true, that it is the best, which will appear from subsequent facts.

2. It is not only the shortest line from the Central West; but it presents the shortest possible route, from the navigable waters of the Mississippi, to the navigable waters of the Pacific ocean. We have the testimony of Maj. S. P. Heintzelman, who was three years a resident at Fort Yuma on the Colorado—that steamboats of 4 feet draught navigated the Colorado in the year 1852 and 1853 at the lowest stage of water. When the Texas road, then, shall reach the Colorado, it is on the navigable waters of the Pacific. But, this point is 260 miles east of San Diego. Deducting this from the whole distance, and we have only thirteen hundred miles of railroad to connect the navigable waters of the Mississippi with those of the Pacific. But, from Council Bluffs to Benicia, the nearest distance on the 41°, is 2,032 miles. In other words, between the Mississippi and the Pacific there is an actual gain on the Texas route of seven



*hundred miles!* This is one-third the whole distance. This alone should determine the whole question." It is decisive.

3. The Harbor of San Diego is a good harbor, and ample for all purposes, so that there is not only no need of going to San Francisco to find a harbor, but for a large part of the commerce of the Pacific, San Diego will be a better point. The description of that harbor, given by those acquainted with it, is that the entrance is about one-fourth of a mile broad, and the length of the harbor about four miles. The United States Men-of-war and the Mail ships of the Pacific Company, have both moored easily, and safely, at the wharves of San Diego. The harbor is completely locked in, and ample enough for any purpose. There is, therefore, no need of making a railroad directly to San Francisco; any more than to the mouth of the Columbia, Puget's Sound, or any other point. The idea that San Francisco has the *exclusive* right to a Pacific railroad, is one which should be repudiated at once. It may be commercially convenient and proper to have a branch road there; and if it is, California should furnish a large part of the means.

4. There is another consideration of immense importance in building a road to the Pacific. It is the cost of *running it*; and here we must consider climatic influences. It is not yet certain that a railroad *can* be run through the Rocky Mountains in the winter season. Let us examine for a moment the circumstances under which it must be run. The influence of climate on railroads has not yet been fully ascertained, for no very systematic observations have been made on the effect of cold and snow on the running of railroads; but, in the experience of the *New York & Erie*, and the *Pennsylvania*, we have elements of an estimate. In the first place, let us see what kind of obstruction of this kind may be met with on the slope of the Rocky Mountains? Those who read the Reports of the Government officers, and the arguments of those who favor a Pacific Railroad through the Northern Pass, will observe that great efforts are made to show that in the *western* slopes of the Rocky Mountains, in Oregon and Washington territories, the depth of snow is small, and no great obstruction need be apprehended from that source. But, in fact, the danger from cold and snow lies on the *eastern*, on the great plains, through which run the Missouri and the Platte. On this head we have two facts of significant import.

Lieut. Tinkham, in his letter to Governor Stevens, (*vide* "Explorations," page 400) says: "The passage of the Bitter Root range was made between November 21st and Dec. 18th. Excepting occasional small valleys, the whole of the mountain district was covered with snow, having, as I judge, a greatest depth of six feet, and an average depth of

two feet for the whole depth of the mountains." This, it will be observed, was in the early part of the winter, before the period of greatest cold.

To this fact we add another, which has occurred the present winter. The U. S. Mail parties, from Independence to the Great Salt Lake, have been driven back by the impossibility of proceeding. They found the snow four feet deep, hard and level, on the great plain of the Platte. It is, therefore, palpable that a railroad constructed on the plains of the Platte and Missouri must encounter a far greater amount of snow and cold than has been encountered by any road yet constructed in the United States. The effect of this obstruction can only be conjectured. But we have one fact which will enable us to estimate at least some part of the effect in running a railroad. An attentive examination of the Reports of the Erie Railroad will show that the average expenses of the three winter months are, in proportion to the business done, 10 per cent. greater than those of the three summer months. But the obstructions on the Erie road are slight, compared with those of a road running on the eastern slope of the Rocky Mountains. If we place 15 per cent. of the whole expenses as the increased cost of *running* such a road over one in Texas, we shall be within the mark. If, then, the expenses of running the road (1,800 miles in length) be \$5,000 per mile, the advantage possessed by the Texas route in *running* expenses will be equal to \$1,350,000 per annum, or 6½ per cent. interest on *twenty millions of dollars*. This will be *one-third* the cost of a railroad to San Diego.

5. The last, but a very potent argument for the Texas route, is the grant of lands made by Texas. This is 10,400 acres per mile under the previous charters, of which that of the Texas Western Company is one. We need not say here more than that the value of Texas lands has rapidly appreciated, and that this grant on 780 miles is equal to 10,000,000 of acres, which, with the advantage conferred by the railroad, would be cheaply estimated at a cash value of *twenty millions*.

The considerations we have briefly stated, are those which seem to give superior weight and importance to the Texas route; but while this fact is undeniable, we shall not hesitate to give all the information we possess on the other routes, and interest our readers in the greatest enterprise of the day.

RACINE AND MISSISSIPPI R. R.—We have to acknowledge the receipt of an invitation to attend the opening excursion of the first forty-eight miles of this road on January 31st. The invitation was too long on the road, and reached us after the fete was over. We hope at the next opening to be on hand.

## SAN DIEGO—THE COLORADO—RAILROAD TO THE PACIFIC.

CINCINNATI, Jan. 16, 1856.

*Editors Journal:*—So much has been said about the impracticability of the Gila country and the Colorado desert, for the purpose of discrediting a railroad over that route, that I have obtained the enclosed brief sketch from Maj. S. P. Heintzelman, who graduated at West Point in 1826. He is distinguished by that firmness, steadiness and prudence, method and accuracy in all things, which have pointed him out to the War Department as a gentleman to be entrusted with situations on the frontiers requiring such characteristics, so necessary for the maintenance of order and discipline, and the general well being of the service.

Such testimony as his own is reliable to the letter, and would not, perhaps, have been obtained, but for his conviction of the necessity of such a road, if for nothing else than the use of the Government, which would save large amounts of money by constructing it for the use of the service alone. By giving it a place in the *Journal*, I have no doubt but that you will be doing a service to the country. Yours,

T. WORTHINGTON.

NEWPORT BARRACKS, KY.,  
January 14, 1856. }

*Dear Sir:*—In reply to your inquiries, 1st, as to the practicability of constructing a railroad from the Colorado at the mouth of the Gila to San Diego on the Pacific Ocean.

2d. As to the capacity and fitness of the bay and harbor of San Diego to accommodate the commerce to be created by the terminus of the Atlantic and Pacific Railroad at that point, &c.

3rd. As to the nature and facilities of the country as regards a railroad from the Rio Grande or Bravo to Fort Yuma, at the mouth of the Gila, I have to say:

1st. That having been stationed for near three years at San Diego and over that time at Fort Yuma, I have had a fair opportunity to observe and examine the bay of San Diego itself and the localities of the route thence to the Colorado, having many times crossed what is called the *Colorado Desert*, extending from the river of that name, to the foot of the coast range of mountains.

The contemplated road will pass for a distance of near 100 miles over this desert, which offers every possible facility for construction, so far as the road bed is concerned, there being many continuous miles over which nothing will be required in the way of grading but simple excavations into the surface for the cross-ties; by going north of Pilot Knob, (the shorter route) the sand, nowhere that I have noticed, ever drifting so as to interfere with the road bed. I had a mule path opened across the coast range over which the



mail has been carried from San Diego to Fort Yuma in 57 hours, the distance being 170 miles.

Recent surveys have demonstrated that this range may be overcome by a grade of not to exceed 107 feet (and this for but three miles) on a distance in all of not over 180 miles—the air line being between 145 and 150 miles.

As to timber, it may be had in the mountains or be brought up the Colorado, which is always navigable (for at least 90 miles above Fort Yuma) and never falls near as low as the Ohio in dry seasons. There has been a steamer running to Fort Yuma, since Dec. 1852; she then, although the season of low water, found five feet of water in the channel.

The valley of the Colorado is narrow above the Fort; below, it is seven miles wide and abounds in cotton wood, willow and musquite, the latter well adapted for fuel, but none fit for timber, unless for very temporary purposes. There is little or no difficulty in obtaining water at short intervals between the Colorado and coast range. I had wells dug and found water by digging not over 15 feet. It is generally of the most indifferent quality, but amply sufficient for railroad purposes.

A great portion of this desert is the finest soil, and susceptible of cultivation by irrigation, which can be easily effected, as the surface of the Colorado is higher than a wide strip of the plain or desert extending in a direction a little west of north over 80 miles. I visited an Indian village near the farther extremity, surrounded with extensive fields of melons, peas, beans and corn. The grass to the south of the wagon road grows luxuriantly, and the weeds are the most enormous I ever saw—reaching above the head of a man on horseback.

2d. As to the capacity of San Diego bay, and its fitness for a harbor, there is none in the world more effectually land-locked and safe in all respects. It is entered by a channel having six or seven fathoms of water, and at its entrance one-fourth of a mile wide.—This channel has a direction a little west of north, and extends gradually around to southwest, and finally almost south, with a depth for some miles of seven to five fathoms, and a width from half a mile to a mile. The length of the bay from its entrance to its southern extremity, is about 15 miles, shoaling gradually as you go up it; but, with almost everywhere sufficient water to float the largest class of Mississippi steamboats. At the new town of San Diego, four miles from the mouth, I have seen at the wharf the Pacific mail steamers and a ship of war. The tides rise from six to nine feet, and the sites for building are as favorable as the most exacting can wish.

3d. I have not crossed the country, between

the El Dorado and El Paso, but from the representations of hundreds who have, and from recent surveys, there is no great difficulty to be anticipated in the construction of a railroad between the two rivers. Water on the surface is seldom wanting for a day's journey. There are also many wooded, watered and arable valleys, on small streams, fed from the adjacent hills, but sinking below the surface in a few miles.

I have long felt certain that a railroad could, and would, some day, pass over this route and recent surveys have more than confirmed my convictions in favor of this important project, which for the benefit of this country, and the world at large, is I trust soon to be pressed forward with vigor.

As to the climate it is peculiarly healthy; on the coast the temperature is delightful; in the interior hot, with little rain, but seldom so oppressive as to make it necessary to suspend labor over a few hours, in the middle of the day.

Truly yours, etc.,

S. V. HEINTZELMAN, U. S. A.

GEN. THOS. WORTHINGTON, Cincin., O.

NOTE.—I have seen the Pacific mail steamers enter and leave the harbor of San Diego, in the densest fogs and darkest nights.

S. V. H.

#### ALLEGHENY VALLEY R. R.—OPENING TO KITTANING.

This road was formally opened by a grand excursion from Pittsburg to Kittanning on Tuesday, Jan. 29. Although invited, we were unable to attend, owing to previous engagements on the same day. We extract from the Pittsburg *Dispatch* the following interesting notice of the route and the occasion:

"At nine o'clock on Tuesday morning, about five hundred invited guests left the Taylor street station for an excursion to Kittanning. The day was pleasant, tho' the ground was covered with a deep snow. We found everything admirably arranged; the cars were comfortable and the road in fine order. We passed up the beautiful valley of the Allegheny in fine style, observing as we went along, many beautiful spots which have already been purchased and laid off in lots for rural residences by many of our citizens.—Among these, Hulton, Parnapus, and many others are susceptible of high improvement. On the opposite side of the river were Sharpsburg, Fairview, Tarentum, and some other villages. At the mouth of the Kiskiminitis the scene is singularly striking and beautiful. To the natural scenery of hills, valleys and rivers, is added the aqueduct across the Allegheny river, the splendid bridge of the Allegheny Valley road across the Kiskiminitis and the new bridge of the North Western Railroad, the three forming three sides of a hollow square. Above the Kiskiminitis the scenery is boldly and beautifully picturesque—the road sometimes running along the base of lofty hills, and sometimes through broad and rich bottoms,

the latter well improved. Crooked Creek, six miles below Kittanning, is spanned by a substantial bridge. Here a village called Roston has been laid out, which will be the station and trading point for the people of the fine valley of that stream. At Crooked Creek we entered Appleby Manor, one of the most beautiful tracts of land in Western Pennsylvania, and which extends to within one mile of Kittanning. Two miles below Kittanning is Manorville, a new village, in which are two fire brick establishments, a large tannery, two stores, &c., &c. At this place many thousands of bushels of grain have already been shipped to this market by railroad. It is a fine agricultural region. Appleby Manor was one of the choice tracts of land reserved by Wm. Penn, when he transferred his claim to the soil of Pennsylvania to the then colony. It was named "Appleby," after his own patrimonial estate or "manor," in England. Approaching Kittanning, the view is singularly fine. The river stretches before us for a long distance and the towns lie in great beauty on a fine level plain bounded on one side by the river, and on the other by a range of lofty hills. At the termination of the road we were met by a procession of the citizens, who bade us welcome and escorted us to the Diamond, whence we were accompanied to our respective hotels. Here most excellent dinners awaited us, given by the citizens of the borough. Every thing was admirably arranged and our welcome as warm as ever greeted a company of hungry men. The ride over the road was very pleasant, and all joined in speaking in the highest terms of its construction. The Bridges are all remarkable for their strength and beauty of build."

After dinner the guests marched in procession to the court-house where interesting speeches were made by A. N. Lee, Esq., of Kittanning, Ex-Governor Johnston, A. W. Loomis, Esq., and Judge Buffington. The speeches were full of reminiscence. We insert the *Dispatch's* report of Gov. Johnston's speech.

"He maintained in an able and convincing manner, that the valley of the Allegheny river was the great natural route—the route laid out by the God of Nature Himself—for connecting the Northeastern States with the West. Others might doubt this, but the speaker or the originators of the enterprise they had that day met to celebrate, never did. He corresponded several years since with Mr. Dudley, of the Chamber of Commerce, New York, on the subject of uniting by railroad the waters of the Genessee river with the waters of the Ohio. The project met with his (Dudley's) warmest approval, and but for the disastrous fire in New York immediately after, the design would have been carried into early execution. Subsequent to this, he persevered in his efforts to have the work begun, and finally an organization of the Company took place, and the road was commenced. The honorable gentleman gave it as his opinion that neither the circuitous route by the lakes, nor that over the summit of the Allegheny mountains, was the natural route to connect the East with the West.—He was persuaded that the easiest and best line of connection between those two sections of the country, lay along the valley of the Allegheny, and hence his support of the road the opening of which they had met to celebrate. He closed by showing that railroads



running along side State improvements, only tended to increase the revenue of those improvements, and cited numerous examples, which fully corroborated his arguments."

It is worthy of remark here that the Allegheny Valley Railroad lies in an undeveloped region, on the line of the great central axis of the Union, from Northeast to Southwest—from Maine to San Diego.

Kittaning, the point to which the road is now opened, is a town of about 2,000 inhabitants, situated on the eastern side of the Allegheny River. It is the county seat of Armstrong county.

The *Dispatch* says:

"Previous to the survey of the Allegheny Railroad, there was but little enterprise in Kittaning. The location of that important line and its subsequent completion to that point have had a great influence on the business and enterprise of the borough, and it is no longer the sleepy, behind-the-age village that it was some half-a-dozen years since. It was usual before the completion of the A. V. R. R. for the merchants of the borough to buy grain during the winter, and store it until such times as the waters of the Allegheny were high enough to permit them to ship it to Pittsburg by steamboat. Some \$120,000 were thus invested every winter, and in addition to its use being lost to those interested, they were compelled to regulate their market by the stage of water, and often to sell at a loss. Now the matter is quite different; by the railroad they are enabled to find not only a Pittsburg, but an eastern market for their products, and though the road has been opened but a few days, the citizens have availed themselves of its advantages, and some \$60,000 worth of grain has already been shipped from the village, which under other circumstances would have to lie there until the river 'broke up.'"

Kittaning, though considered a secluded village, has a number of roads terminating within her boundaries, which, in the eyes of the adjacent northern counties, helps to make her, in their estimation, a town of note and business. The Clarion, Brookville, Punxsatowney, Indiana and Freeport roads all terminate in the borough, and now by the completion of a new bridge across the Allegheny river, which will be finished in a few days, at an expense of \$36,000, the Butler, Kittaning and Indiana turnpike will be brought in direct connection with the village. This road is considered by drovers the shortest route from the Western Reserve to the East, and something like 30,000 head of stock pass over it annually."

**ANNEXATION OF FLORIDA.**—Since it has been ascertained that Governor Broome had refused his approval to the resolutions of the late General Assembly, concerning the cession of West Florida to Alabama, we understand by the Marianna Patriot that there is a report in that town that the East, South and West Florida have agreed to sell the middle portion of the State to Georgia for \$500,000, and with the above sum to pay off the debt of the State, divide the remainder, and allow it to go to Alabama.—*Florida Democrat*, Jan. 19.

# MISSISSIPPI AND TENNESSEE R. R.

The Mississippi and Tennessee R. R. will form the extension of the Mississippi Central and New Orleans and Jackson Railroads, constituting a link in a line of railways, extending from the city of New Orleans to the city of Memphis—binding together the two great commercial marts of the South-west, and competing with the Mississippi river for its enormous influx of passengers traveling between those points.

At Memphis, one of its termini, the prospect is flattering that it will have speedy connection with Charleston, and Savannah, and Richmond, by means of the Memphis and Charleston road, now two-thirds completed; with Louisville by means of the Memphis and Ohio road, now running its cars over thirty miles; with Little Rock by means of the Memphis and Little Rock road, now ready to lay iron for over twenty miles, and with St. Louis, by means of an extension of the Iron Mountain road to Memphis.

The route of the road runs at an average distance of about thirty-five miles from the Mississippi. The length of the road will be about one hundred miles, and its capital stock \$2,000,000. Like almost all other enterprises, its capital stock alone, if all taken, will not be sufficient to build and equip the road. Feeling the necessity of an early provision of ample means, the Board have made application to the Legislature of Mississippi for a grant of a portion of the lands donated to this State by the general government for the purpose of internal improvement. In their memorial to the Legislature; they give the following account of this Company:

Our Company procured its charter at the called session of the Legislature in 1852. In November, 1853, the Company organized. In September, 1854, they began the work on their road, and now sixteen months after the first shovel of dirt was cast, we can show fifty miles of railroad within six weeks work of being completely graded and bridged, crossings delivered, and iron laid on fifteen miles.

We have already purchased iron for thirty-three miles, which is now in New Orleans and Memphis. We have iron enough for twelve miles more, perhaps on the way from Europe. We have purchased four locomotives, two of which are now on the track—two passenger cars, two baggage cars, thirty freight cars, and four gravel cars. And on all this work, and these purchases, except the iron in transitu, the Company does not owe an amount exceeding sixty thousand dollars.

The Company have accomplished all this work, paying up for it as it was done, preserving its credit untarnished, within the short space of sixteen months. We confidently defy any other enterprise in the State to make a fairer showing; or one that can, on this ground, show any better claims for an investment in stock of the State lands.

The Company was an applicant for a share of the Internal Improvement lands before the Legislature of 1853-54. The opponents of the Company procured the rejection of the claims, by representing their road to be an ideal one; one that had no prospect of con-

summation. They now triumphantly point out this road to those who once misrepresented its resources, as a practical realization, not surpassed by any other enterprise in the State.

Our Company have recently extended their grading contracts to the Tallahatchie river, and intend, when a final location of the route is made, to extend them still further. They have an effective force constantly at work laying down the crossings and iron rails, and expect by next autumn to have fifty miles of operative road.

The exhibit here made is highly creditable to the energy and capacity of the Board, and in our opinion, the State of Mississippi can make no better disposition of its lands than by giving them in fair proportion to such enterprises as this. Mississippi needs the development that such an enterprise will give it, and the Legislature will do well to aid those who evidently know how to use their means to the best advantage.

The following is the financial exhibit of the Company to October, 1855:

|                                                                                                                                            |              |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Dr.                                                                                                                                        |              |
| To light of Way.....                                                                                                                       | \$4,777 31   |
| To Engineering.....                                                                                                                        | 11,898 88    |
| To General Contingent Account, embracing various items, as negro hire, rent, fuel, stationary, printing, outfit Engineering Corps, &c..... | 9,620 59     |
| To salaries of officers.....                                                                                                               | 3,400 00     |
| To grading and masonry.....                                                                                                                | 123,099 40   |
| To Bridging.....                                                                                                                           | 9,734 05     |
| To Trestle-work.....                                                                                                                       | 17,423 98    |
| To crossings.....                                                                                                                          | 2,600 00     |
| To iron account.....                                                                                                                       | 100,011 02   |
| To equipment.....                                                                                                                          | 24,636 26    |
| To buildings.....                                                                                                                          | 434 69       |
| To wells.....                                                                                                                              | 155 35       |
| To track laying.....                                                                                                                       | 12 00        |
| To bills receivable, embracing                                                                                                             | \$116,000 in |
| Memphis City Bonds.....                                                                                                                    | 117,193 48   |
| To discount.....                                                                                                                           | 12,550 00    |
| To interest.....                                                                                                                           | 301 54       |
| To ledger balance.....                                                                                                                     | 101 72       |
| To cash assets.....                                                                                                                        | 30,050 79    |
|                                                                                                                                            | \$467,600 56 |

|                                          |              |
|------------------------------------------|--------------|
| Cr.                                      |              |
| By capital stock.....                    | \$174,952 98 |
| By instalment No. 1.....                 | 4,770 50     |
| "    "    2.....                         | 28,096 00    |
| "    "    3.....                         | 24,952 00    |
| "    "    4.....                         | 23,276 00    |
| "    "    5.....                         | 21,144 00    |
| "    "    6.....                         | 19,636 00    |
| "    "    7.....                         | 16,932 00    |
| "    "    8.....                         | 15,604 00    |
| "    "    9.....                         | 24 00        |
| "    "    10.....                        | 24 00        |
| "    "    11.....                        | 24 00        |
|                                          | \$329,395 48 |
| By De Soto Co. School Fund, borrowed.... | 6,216 08     |
| bills payable.....                       | 33,797 12    |
| aid from State of Tennessee.....         | 96,000 00    |
| ledger balance.....                      | 191 88       |
|                                          | \$467,600 56 |

Memphis, the northern terminus of this road, is a city of enterprise. Situated on a bluff on the Mississippi, its position is healthy. And as the outlet of the vast agricultural region around it, it must become a place of considerable commercial importance.

The following censuses will show its growth:

|           |        |
|-----------|--------|
| 1840..... | 3,000  |
| 1850..... | 6,427  |
| 1854..... | 12,687 |

But apart from its natural position, Memphis is becoming quite a railroad center. With roads verging to it from the North, East, South and West, and being the shipping point on the Mississippi for the produce brought on these roads, its merchants have all the natural advantages they could desire



for enlarging their circle of trade. And we may add here that few cities appreciate better than Memphis the advantages to be secured by a judicious system of railroads.

#### CAIRO AND FULTON RAILROAD.

This is to us of the Ohio Valley one of the most interesting unfinished roads now projected. It connects our own roads in the shortest possible direction, with the great interior west of the Mississippi, and on its completion we may look for a rapid development of that region. The following, from the *Little Rock True Democrat*, will be interesting to our readers:

We were gratified to learn from Judge Cross, who returned a few days since from south-east Missouri, the success he met with in advancing the prospects of that division of the Cairo and Fulton Railroad. He says that Butler county has transferred in due form to the company, 100,000 acres of her swamp lands; Stoddard county, 150,000 acres, and Dunklin county, 100,000 acres. Most of these lands are of the finest quality for agricultural purposes.

There is, Judge Cross informs us, hardly a doubt but that Scott and Ripley counties will each transfer a liberal quantity of their lands to the company, and if so, it will thus own and control 500,000 acres of the most valuable lands in addition to the rich donation made by Congress. Confidence in the success of the road is fixed. No one now seems to entertain a doubt on the subject. A more cheering state of things never before existed any where on the line of the road. The section running through south-east Missouri is not only thus most liberally provided for, but is, in construction the cheapest. It will be remembered by our readers that the great opposition to the grant of lands in this State was made *professedly* on the ground of the *impracticability* of that part of the road in Missouri. *Sunken lands and impassable swamps* figured in all the objections. The truth is now known, and is as we stated it to be at the outset. The road through south-east Missouri can be more easily and cheaply built than any other portion.

We extract the following from a letter written at Bloomfield, Mo., and received here after Judge Cross, the writer, had passed through on his return home.

"I cannot but rejoice at the great change in the prospects of this hitherto neglected and unappreciated, but interesting portion of Missouri. Having traveled through every portion of south-east Missouri, and become somewhat acquainted with most of the citizens, to many of whom I am indebted for civilities and a generous hospitality, scarcely equalled in any country, it is not strange that I should feel some interest in the favorable change in her destiny, now resting upon so liberal a basis.

At no distant period this will be regarded as one of the finest portions of the State, and surpassed by no other in wealth and prosperity. The Iron Mountain Railroad will, in its extension south, tap the Cairo and Fulton road somewhere in this country, or pass thro' it in effecting a junction. Their surveys, made in 1853, approach it within a few miles, so that in addition to immense bodies of as fertile lands as any in the world, the country will have the benefit of railroad intercourse

with St. Louis, Chicago, and the upper Red river country, Texas, and indeed every portion of the Union. The extent of wet swampy lands, is greatly below what I had supposed, and will constitute no serious impediment to a dense settlement of the country.

The managing committee of the two companies, now consolidated, should have agents in the field at once, for the purpose of examining, listing, and classifying, and preparing plats of the lands on this division of the road. The whole, or at least a portion of the road, might be put under contract as soon as the selections are made and the titles perfected, on favorable terms, and without risk as to means. The large amount of valuable lands, under the control of the company, will constitute a basis of credit so secure and ample that means could be obtained at fair rates in any money market of this country or Europe. As one division of a line of road connecting productive and extensive sections of country, passing from the northern to the southern boundary of the United States, and almost straight in its direction, no one can doubt that it will be remunerative when completed, and that of itself is justly considered an element of strength and credit, in all railroad enterprises.

On yesterday, I addressed a large collection of the citizens of this country, on the subject of the road, and the policy of turning over to the company a portion of their swamp lands. They generally concur that it would be the best disposition that could be made of them, so that they get the road, and this of itself will reclaim a large portion of the country and fit it for cultivation and settlement.

In my efforts to arouse the people to bold and efficient action, I have been greatly aided by several public spirited gentlemen in south-east Missouri. To those, and many other citizens, may be attributed much more than to any effort of mine, the credit of the strong position now occupied by the company. I am assured by practical railroad men of large experience, that the land basis will insure ample means to complete the whole of this division, and provide it with every necessary equipment for an extensive business, as well as provide adequate facilities for crossing the Mississippi river at Cairo."

#### GALVESTON AND RED RIVER R. R.

As a matter of general interest to our readers, we publish the following statistics, showing the progress and present condition of the Galveston and Red River Railroad, as furnished by one well acquainted with the facts:

1st. The grade is nearly completed from Houston to a mile beyond Cypress Creek.

2d. About 30,000 ties are now on the ground, and the contractors have ordered 10,000 from Maine.

3d. The bridges and culverts are in progress of construction, and will soon be finished.

4th. Full half of the necessary rails have either arrived or are on the way.

5th. One locomotive of 19½ tons weight, with tender, (cylinders 12 by 20 inches, and four five feet drivers, outside connection) called the *Ebenezer*, together with four of the cars, all the chairs and spikes, frogs, hand-cars, &c., &c., necessary for the first twenty-five miles, are either here or on the way.

6th. The road has been surveyed and level-

ed to the Brazos timber, near Mr. Donaho's residence, thence due north to the Navisoto, crossing that stream near the town of Anderson, passing near Boonville and the town of Springfield.

This is as far as the company have located the road. From that point it will run up towards the Red River counties, and thence diverge north-east, striking Red River near the town of Fulton, connecting with the Cairo and Fulton road, which also connects with the Central Illinois road. The stock already subscribed amounts to nearly half a million of dollars. There has been expended, up to this time, on account of grading, bridging, ties, mud sills, culverts, road crossings, lateral ditches, grubbing, &c., &c.,

|                                                                                                              |             |
|--------------------------------------------------------------------------------------------------------------|-------------|
| The sum of.....                                                                                              | \$95,447 22 |
| Amount paid on account of iron, engines, cars, chairs, spikes, machinery, &c.....                            | 88,800 47   |
| Amount paid for right of way.....                                                                            | 230 00      |
| Amount paid for engineering, trustees, European agents, traveling agents, office expenses, salaries, &c..... | 20,054 69   |

Total paid out.....\$205,932 28

The survey has been paid for a distance of one hundred and fifty-four miles, in addition to which a large tract of country has been explored. Thus far the road has been prosecuted almost exclusively by the efforts of the citizens of Houston alone. Our informant says the work for grading the next twenty-five miles will be commenced on the 1st of January proximo, and that it is the intention of the company to have fifty miles in running order by the 1st of September, 1856. Heavy planters, he says, have proposed to take contracts for the grading, by sections, in payment of stock. He adds, that as soon as the first twenty-five miles are finished, negotiations abroad can be effected for money, so that the work can be prosecuted without the aid of loans from the State. We may here remark that we have also been informed by gentlemen connected with the Galveston, Houston and Henderson Railroad, that that company feel perfectly able to prosecute this road without the aid proposed to be given by the loan bill now before our Legislature, though we presume they will accept the proposed loan, if the bill becomes a law, provided the terms are not too stringent. They say that the first mortgage required by the State, will operate unfavorably on effecting additional loans.

#### Miscellaneous and Mechanical.

From the New York Post.

##### HOW WE GET OUR LIGHT.

We learn, with a pleasure which we desire all our readers to share, that the gas companies of this city intend to reduce their gas rates from \$3 to \$2.50 per thousand cubic feet, in October next. This will make a difference to the consumers of the city, in the course of a year, of not less than \$400,000. In communicating this gratifying intelligence we may as well avail ourselves of the occasion to lay before our readers some facts touching the manufacture and consumption of gas light, which are of general interest. They will show that at least in one important particular the people of this generation enjoy one advantage over the generation which preceded it. Charles Lamb thought the condition of society, before candles came in, and when people had to feel around for the smile which their jokes provoked, was desperate,



but it seems to us hardly more so than that of our immediate ancestors, who had to rely upon the dull blaze of dips and moulds.

The first account of the manufacture of gas from coal is contained in a letter addressed by the Rev. John Clayton, of England, to the Hon. Robert Boyle, to be found in the Philosophical transactions for the year 1793. Mr. Murdoch, a Scotch engineer, conceived the idea of applying the discovery of Mr. Clayton to the purposes of illumination. With this view he commenced a series of experiments in 1792, on gases obtained from coal, wood and peat by heat, and in this manner succeeded in lighting his own house.

Bolton and Watt employed Mr. Murdoch in 1798 to construct an apparatus to light up their manufactory, near Birmingham. With the exception, however, of a few scientific persons, who were attracted by its novelty, the subject of gas light as applied to dwellings did not make much progress for several years after Bolton and Watt had tested its ability to light their manufactory. In demonstration of their joy at the peace of Amiens, these gentlemen illuminated their establishment with a light so brilliant, and so much superior to those observed elsewhere, that the whole town was attracted thither, and gazed upon it with wonder and admiration. The newspapers of the day were full of this exploit, easy modes of making it were described, and at every fire-side tobacco pipes were called into requisition for the purpose of distilling in their bowls an artificial light.

A company at this time was formed by Mr. Winsor, to light London with gas; but so imperfect was its manufacture, and so great the prejudice it had to overcome, that the original projectors became embarrassed with difficulties, and made but slow progress in its introduction into general use. The views of Mr. Winsor were extravagant in the extreme. He assured his subscribers that by the investment of twenty-five dollars they might hope for an annual profit of three thousand dollars, and that England might save thereby three hundred millions of dollars. It is not surprising that a scheme conceived in such an extravagant spirit should have fallen into disrepute, and for a time have cast obloquy upon the whole subject.

In 1812 the London and Westminster Gas Light Company, with a capital of one million of dollars, made the first real step in advance towards lighting cities with gas. In 1814, this company had but one gasometer, capable of holding 14,000 feet. From this time the introduction of gas into use in London became so general, that in 1824 there were four companies in operation, having 47 gasometers capable of containing 917,940 feet of gas. During this year 379,000,000 of cubic feet of gas were manufactured, and 61,203 buildings, and 7,268 street lamps lighted. The experiment thus made in London was, soon after, followed by many of the other cities in England and on the continent, as well as by those of the United States. The use of gas has now become so general, that few towns of any considerable size in England and the United States are without it.

The process of making coal gas is simple. Bituminous coal is thrown into a hot cylinder of iron, the mouth of which is closed carefully by an iron door, with the edges cemented by soft clay. The vapor arising from the coal is received into a tube, by means of which it is permitted to escape into a series of vessels, where it is cooled and deposits much of its impure matter. It is then passed

into another series of vessels containing quick lime, which robs it of its sulphurous and other nauseous intermixtures. From this receiver it flows purified, as we find it in use, into the gasometer, and is from thence distributed, as it may be needed, through mains and service pipes, into various parts of the city. The highly charged bituminous coals, such as the English Cannel coal or the Albert coal of Nova Scotia, are found best adapted to the purposes of gas making.

The machinery of different companies may have slight differences, but the principle, as here set forth, is to be found in all of them, and in practice varies but little. The chief improvement made within a few years consists in the mode in which pressure is supplied to the gasometer, and the consequent regularity with which the gas issues from the burners.

A company was formed to supply New York with gas in 1823, and a little before this period, a similar one was organized in Baltimore. These were the first attempts made to supply gas to towns in America. Neither of these companies succeeded in their enterprise. In 1827, the present New York Gas-light Company commenced their works, and have since continued to supply their customers with a regularity which is almost without a parallel. The Manhattan commenced about six years after the New York Company.

The city is divided between two companies—the New York and the Manhattan Gas-light Companies. To the former of these, all that part of the city below Grand street is appropriated, and to the latter, that portion between Grand and Seventy-ninth streets. The New York Gas-light Company has one hundred and thirty miles of pipe laid through the streets of the city, ranging from four to eighteen inches in diameter, and professes to be able to supply with gas the houses upon every street, lane, court and place within its jurisdiction. The amount of gas manufactured by this company in 1855, was about 300,000,000 cubic feet; the amount of coal consumed about 45,000 tons; the number of street lamps lighted 3,200, and the number of consumers 9,000.

The Manhattan Company has one hundred and seventy-eight miles of pipe laid, varying from four to twenty inches in diameter, and made in 1855 470,000,000 cubic feet of gas. It lights 7,148 street lamps, and supplies 17,300 consumers. The prices charged for gas by both companies is three dollars per thousand cubic feet. The city lamps are lighted and kept in order at twenty-five dollars each per annum. This charge, after deducting the expenses incurred in lighting and keeping them in order, yields to the respective companies about \$1.50 per thousand feet for the gas consumed, a sum entirely inadequate to defray the cost of its manufacture. The arrangement was entered into, however, as a sort of bonus given to the city for the privilege of using its streets for the gas mains, which are laid down and opened under the direction of the Street Commissioner, whose assent is necessary for every alteration required or opening made in the streets by the gas companies.

In the manufacture of gas from Newcastle coal, a chaldron weighing 27 cwt. is found to yield.

|                        |                   |
|------------------------|-------------------|
| Gas.....               | 8,650 cubic feet. |
| Coke.....              | 24 cwt.           |
| Ammoniacal liquor..... | 12½ gallons.      |
| Thick Tar.....         | 12                |

Cannel coal will yield upon an average 12,000 cubic feet of gas to the chaldron. Gas coal in New York costs upon an average \$12 per chaldron.

As gas is sold by the cubic foot, there is placed in the dwelling of each consumer a meter, to measure the quantity consumed, and by which the charges are made for its consumption. This instrument, which must be familiar to all gas consumers, consisting of a hollow drum of sheet iron, divided within by four revolving partitions, attached to a center piece, which moves the cogs of a series of wheels connected with the hands upon the dial of the meter, and indicates through them the number of revolutions made by the partitions, and the consequent number of feet of gas permitted to escape from the meter into the pipe leading to the burners.

As this instrument is the only arbiter between the companies and their consumers, it has undergone severe ordeals to test its accuracy. The most thorough investigation which has been made of it, was conducted under the direction of a commission of the House of Commons. Several hundred meters were put to the test by this commission, and but two or three were found to register against the consumer, and that in the most trifling degree.

Not only the investigations of this committee, but all the other tests to which it has been subjected, prove this instrument to be perfectly reliable. By a few moments examination of the dial, which is always open to the consumer, he can with certainty determine for himself his weekly, daily, nay hourly consumption of gas, and if he fails to do this, the fault rests with himself and not with the company, who have placed within his reach the means of verifying the accounts rendered to him.

It has been questioned whether the competition found so needful in most other departments of industry is of service, or even allowable, in the manufacture of gas. We have no experience in the United States as to the effect of such competition. That of England, however, is that wherever two companies occupy the same district they not only prove injurious to each other, but in the end are disadvantageous to the public. Two capitals are invested, two sources of wear and tear are created, two sets of officers require to be maintained, and finally, upon their union, which sooner or later must follow, the public are required to pay the additional expense incurred by the rival works.

Mr. Hawksley, engineer to the Nottingham Water Works, in his examination before the Commission on large towns, is emphatic in the opinion that in towns where but one company has occupied the district to be supplied, experience has invariably proved that gas has been furnished for a length of time cheaper to consumers, than where competition has unnecessarily added to the capital required to effect the object. He instances the case of London, where several companies have existed in the same district and coalesced, as an evidence of the truth of his statement.

Perhaps, after all, the law in force in Liverpool furnishes the best protection to the consumer against inordinate charges. This law provides that whenever the profits of a gas company shall exceed ten per cent. per annum on the capital invested, the company shall reduce the price charged for gas, until the profits come within the limits prescribed.



## TABLE OF RAILROAD BONDS AND SHARES, CORRECTED WEDNESDAY OF EACH WEEK.

| COMPANY.                                                     | NATURE OF BOND.                          | INT. DUE.     | OFF'D. ASK'D. | SHS. OFF'D. ASK'D. |
|--------------------------------------------------------------|------------------------------------------|---------------|---------------|--------------------|
| Alabama and Tennessee.....                                   | 1st mortgage, convertible in 1872        | 7 1872        |               |                    |
| Baltimore and Ohio.....                                      | Transferable. Taxed.....                 | 6 1885        | 91 93         | 100 54 56          |
| Do do.....                                                   | Coupons. Not Taxed.....                  | 6 1875        |               |                    |
| Do do.....                                                   | " ".....                                 | 6 1880        |               |                    |
| Do do.....                                                   | " ".....                                 | 7 1880        |               |                    |
| Do do.....                                                   | " ".....                                 | 6 1885        |               |                    |
| Bellefontaine and Indiana.....                               | 1st mortgage, convertible.....           | 6 1866        | 98            | 50 30 32           |
| Buffalo and Penn. State Line.....                            | 1st mortgage, not convertible.....       | 6 1866        |               |                    |
| Chicago and Rock Island.....                                 | 1st mortgage, convertible.....           | 7 1870        | 91 98         | 91 92              |
| Chicago and Mississippi.....                                 | 1st " ".....                             | 7 1862        |               |                    |
| Do do.....                                                   | 2d " ".....                              | 7 1874        | 65            |                    |
| Chicago and Aurora.....                                      | 1st " ".....                             | 7 1866        |               |                    |
| Cincinnati, Newcastle and Mich. Real Estate.....             | " ".....                                 | 7 1859        | 100           | 100 101            |
| Cleveland, Columbus, and Cin'tist mortgage, convertible..... | " ".....                                 | 7 1855        |               |                    |
| Do do.....                                                   | do No mortgage, convertible.....         | 7 1855        |               |                    |
| Cleveland and Mahoning.....                                  | 1st mortgage.....                        | 7 1861        | 100           |                    |
| Cleveland, Paines, & Ashtabula.....                          | 1st mortgage.....                        | 7 1861        |               |                    |
| Do do.....                                                   | do 2d " not convertible.....             | 7 1861        |               |                    |
| Cleveland and Pittsburgh.....                                | 1st " convertible.....                   | 7 1860        | 63 64         |                    |
| Do do.....                                                   | 2d sec. convertible.....                 | 7 1873        |               |                    |
| Cleveland and Toledo.....                                    | 1st mort. not conv. '73.....             | 7 1863        | 93 94         | 50 75 76           |
| Cleveland, Zanesville, & Cin'ti.....                         | " ".....                                 | 7 1867        |               |                    |
| Cincinnati, Hamilton & Dayton.....                           | 1st mortgage " till 1855.....            | 7 1880        | 85 87         | 62 65              |
| Do do.....                                                   | 2d mortgage.....                         | 8 1880        | 42 43         |                    |
| Cincinnati, N. C. & Michigan.....                            | 1st mortgage, real estate, conv.....     | 10 5 & 10 y's | 45 47         | 12 14              |
| Cincinnati Western.....                                      | " ".....                                 | 8 1880        | 62 65         | 20 25              |
| Cincinnati, Wil. and Zanesville.....                         | 2d " ".....                              | 7 1862        |               |                    |
| Cincinnati, Ind. and Chicago.....                            | Real Estate.....                         | 8 1859        | 42 45         | 0 11               |
| Cincinnati and Chicago.....                                  | 1st mortgage, convertible.....           | 7 1862        | 75 76         | 7 11               |
| Columbus, Piqua and Indiana.....                             | 1st mortgage, convertible.....           | 7 1862        | 60 61         |                    |
| Do do.....                                                   | 2d " ".....                              | 7 1859        | 90 91         | 84 87              |
| Columbus and Xenia.....                                      | 1st mortgage, convertible.....           | 7 1883        | 67 68         | 50 19 21           |
| Covington and Lexington.....                                 | 2d " " till 1862.....                    | 10 1862       | 62 63         |                    |
| Do do.....                                                   | Income.....                              | 7 1867        |               |                    |
| Dayton and Michigan.....                                     | 1st " ".....                             | 7 1862        |               |                    |
| Dayton and Western.....                                      | 1st " ".....                             | 7 1862        |               |                    |
| Dayton, Xenia and Belpre.....                                | Real Estate.....                         | 10 1862       | 55 61         |                    |
| Eaton and Hamilton.....                                      | 1st mortgage.....                        | 7 1862        | 60            | 25 25 27           |
| Erie and Kalamazoo.....                                      | 1st mort. guaranty Mich. S. R. R.....    | 7 1862        |               |                    |
| Evansville and Crawfordsville.....                           | 1st mortgage.....                        | 7 1862        | 80 81         |                    |
| Fort Wayne and Southern.....                                 | 1st mortgage.....                        | 7 1862        |               | 12 14              |
| Franklin and Warren.....                                     | 1st mortgage.....                        | 7 1862        |               |                    |
| Galena and Chicago Union.....                                | Pledge of second section, cenver.....    | 10 1853-6     |               | 100 108 110        |
| Hillsboro and Cincinnati.....                                | 1st mort.....                            | 7 1878        | 50 61         | 50 25 27           |
| Illinois Central.....                                        | 1st mortgage, not convertible.....       | 6 1875        | 85 83         | 100 96 98          |
| Do do.....                                                   | Freeland.....                            | 7 1875        | 87 89         |                    |
| Indiana Central.....                                         | 1st mortgage, convertible.....           | 7 1866        | 63 75         | 50 45 50           |
| Do do.....                                                   | " ".....                                 | 10 1857       | 80            | 50 50 50           |
| Indianapolis and Bellefontaine.....                          | 1st " ".....                             | 7 1860-1      | 75            | 25 21              |
| Indianapolis and Cincinnati.....                             | 2d mortgage.....                         | 7 1861        | 77 80         | 50 62              |
| Indianapolis and Lafayette.....                              | 1st " ".....                             | 7 1861        |               |                    |
| Jeffersonville.....                                          | 1st " not ".....                         | 7 1861        |               |                    |
| Junction (Ohio).....                                         | 1st " ".....                             | 7 1867        |               |                    |
| Do Indiana.....                                              | Real Estate.....                         | 10 1867       | 70 72         | 50 11 15           |
| La Crosse and Milwaukee.....                                 | 1st mortgage, convertible.....           | 8 1864        | 77 82         | 100 10 15          |
| Little Miami.....                                            | 1st mortgage, not convertible.....       | 6 1883        | 80 83         |                    |
| Do do.....                                                   | " " till 1855.....                       | 7 1858        | 95 100        | 50 90 93           |
| Louisville and Nashville.....                                | " " unconvertible.....                   | 7 1858        |               |                    |
| Lyons, Iowa, Central.....                                    | 1st mortgage, convertible.....           | 7 1873        |               | 100                |
| Mad River and Lake Erie.....                                 | 1st mortgage, convertible till 1855..... | 7 1855-6      | 75            |                    |
| Do do.....                                                   | 2d " ".....                              | 7 1866        | 70 76         |                    |
| Do do.....                                                   | Dividend.....                            | 7 1860        | 75            |                    |
| Madison and Indianapolis.....                                | 1st mortgage, convert. after 1853.....   | 6 1861        |               |                    |
| Marietta and Cincinnati.....                                 | Domestic Bonds.....                      | 7 1861        | 50 51         | 50 17 20           |
| Do do.....                                                   | United 2d " ".....                       | 7 1861        |               |                    |
| Hillsboro and Cincinnati.....                                | 1st " ".....                             | 7 1861        | 50 55         |                    |
| Maysville and Big Sandy.....                                 | 1st mortgage, convertible.....           | 6 1873        |               | 50                 |
| Maysville and Lexington.....                                 | 1st mortgage, convertible.....           | 6 1873        |               |                    |
| Memphis and Charleston.....                                  | 1st mortgage, convertible.....           | 6 1873        |               |                    |
| Michigan Central.....                                        | No mortgage, convertible.....            | 8 1860        | 97            | 92 93              |
| Do do.....                                                   | " " not ".....                           | 8 1855-6      |               |                    |
| Do do.....                                                   | " " ".....                               | 8 1857-8      |               |                    |
| Michigan Southern.....                                       | 1st " ".....                             | 7 1860-90     | 100           | 94 96              |
| Milwaukee and Mississippi.....                               | 1st " ".....                             | 8 1862        | 84 85         |                    |
| Mobile and Ohio.....                                         | 1st mortgage 6s. 1884.....               | 8 1862        |               |                    |
| Nashville and Chattanooga.....                               | 1st mortgage on 1st section.....         | 10 1858-62    |               | 50 6 10            |
| New Albany and Salem.....                                    | 1st " " on other sec. con.....           | 8 1864-75     |               |                    |
| New Castle and Richmond.....                                 | 1st " convertible.....                   | 6 1873        |               |                    |
| New York Central.....                                        | 1st mortgage, not convertible.....       | 7 1867        | 101 102       |                    |
| Do do.....                                                   | 2d " convertible.....                    | 7 1862        | 97 96         | 100 54 55          |
| Do do.....                                                   | " " ".....                               | 7 1863        | 91 92         |                    |
| Northern Cross, Ill.....                                     | 1st mortgage, convertible.....           | 8 1873        |               |                    |
| Northern Indiana.....                                        | 1st " not convertible.....               | 7 1861        | 98            |                    |
| Do do.....                                                   | Construction Bonds.....                  | 8 1868        | 51 82         | 89 90              |
| Ohio Central.....                                            | 1st mortgage, convertible.....           | 7 1861        | 67            | 18 21              |
| Ohio and Mississippi.....                                    | 2d " ".....                              | 7 1860        | 42 46         | 8 8                |
| Ohio and Indiana.....                                        | 1st " ".....                             | 7 1867        |               | 50 14 18           |
| Ohio and Pennsylvania.....                                   | 1st " ".....                             | 7 1865        |               |                    |
| Do do.....                                                   | Income. No mortgage, convert.....        | 7 1872        |               | 50                 |
| Pacific, Mo.....                                             | 2nd issue.....                           | 7 1872        | 107 108       | 101 103            |
| Parkersburg (or N. western Va.).....                         | Guar. City of Balt.....                  | 7 1873        |               |                    |
| Pennsylvania.....                                            | 1st mortgage, convert. till 1860.....    | 6 1880        |               | 50 43 40           |
| Perru and Indianapolis.....                                  | 1st " ".....                             | 7 1872        |               | 25 16 20           |
| Rock River Valley Union.....                                 | 1st " ".....                             | 7 1872        |               |                    |
| Sandusky and Mansfield.....                                  | 1st " ".....                             | 7 1860        |               |                    |
| Do do.....                                                   | 2d " ".....                              | 10 1853-7     |               |                    |
| Scioto and Hocking Valley.....                               | 1st " Income.....                        | 7 1861        | 50 51         | 50 50 51           |
| Southwestern, Tennessee.....                                 | 1st " ".....                             | 7 1865        |               |                    |
| Springfield and Columbus.....                                | 1st mortgage, convertible.....           | 7 1865        |               |                    |
| Steubenville and Indiana.....                                | 1st " ".....                             | 7 1862-72     | 91 93         |                    |
| Terre Haute and Alton.....                                   | 1st " ".....                             | 8 1865        | 78 80         |                    |
| Do do.....                                                   | 2d " ".....                              | 8 1865        |               |                    |
| Terre Haute and Richmond.....                                | 1st " ".....                             | 6 1866        |               |                    |
| Toledo, Norwalk and Cleveland.....                           | 1st " ".....                             | 7 1863        | 87 88         | 50                 |
| Do do.....                                                   | 2d " ".....                              | 7 1863        |               |                    |
| Do do.....                                                   | Guofar C.....                            | 1863          |               |                    |

## STOCK TABLE.

CORRECTED WEEKLY.

| GOVERNMENT SECURITIES.                                        |            |             |               |
|---------------------------------------------------------------|------------|-------------|---------------|
|                                                               | INT.       | DUE.        | OFF'D. ASK'D. |
| U. S. Loan.....                                               | 6 1856     | 103 105     |               |
| Do.....                                                       | 6 1862     | 112 113     |               |
| Do.....                                                       | 6 1867     | 117 120     |               |
| Do.....                                                       | 6 1868     | 116 118     |               |
| Do Coupons.....                                               | 6 1862     | 118         |               |
| Do.....                                                       | 6 1867     | 118         |               |
| Do.....                                                       | 6 1853     | 101         |               |
| STATE.                                                        |            |             |               |
| Alabama.....                                                  | 5 1870     | 84 85       |               |
| California.....                                               | 6 1860     | 96          |               |
| Arkansas.....                                                 | 6 1860     | 98 99       |               |
| Georgia.....                                                  | 7 1860     |             |               |
| Illinois Canal Bonds.....                                     | 6 1860     |             |               |
| Do do registered.....                                         | 6 1860     |             |               |
| Do do do.....                                                 | 6 1867     |             |               |
| Do do registered.....                                         | 6 1867     |             |               |
| Do do Internal Imp't.....                                     | 6 1847     | 105 106     |               |
| Do Interest do.....                                           | 5 1872     | 72 75       |               |
| Indiana.....                                                  | 5 1860     | 82 83       |               |
| Do.....                                                       | 2 1/2 1860 | 54 55       |               |
| Do Canal Loan.....                                            | 6 1860     |             |               |
| Do do preferred.....                                          | 5 1860     |             |               |
| Do special preferred.....                                     | 5 1860     |             |               |
| Kentucky, 30 years.....                                       | 6 1871     | 102         |               |
| Do 16 years.....                                              | 6 1871     | 102         |               |
| Do large bonds.....                                           | 6 1869-72  | 100 104     |               |
| Do.....                                                       | 5 1860     |             |               |
| Louisiana.....                                                | 6 1860     | 93 95       |               |
| Michigan.....                                                 | 6 1860     | 97 98       |               |
| Missouri.....                                                 | 6 1860     | 85 86       |               |
| New York.....                                                 | 6 1873     | 116 117     |               |
| North Carolina.....                                           | 6 1860     | 98 100      |               |
| Ohio.....                                                     | 6 1860     | 102 106     |               |
| Do.....                                                       | 6 1860     | 102 106     |               |
| Do.....                                                       | 6 1870     | 107 110     |               |
| Do.....                                                       | 6 1875     | 110 119     |               |
| Do.....                                                       | 5 1855     |             |               |
| Pennsylvania.....                                             | 6 1860     |             |               |
| Do.....                                                       | 5 1870     | 89          |               |
| Tennessee, long loan.....                                     | 6 1890     | 94 95       |               |
| Do Coupons.....                                               | 5 1860     | 81 83       |               |
| Virginia Coupons.....                                         | 6 1866     | 94 95       |               |
| CITY SECURITIES.                                              |            |             |               |
| Albany.....                                                   | 6 1871-81  | 90 94       |               |
| Allegheny.....                                                | 6 1875-7   | 80          |               |
| Baltimore.....                                                | 6 1870-90  | 100 100 1/2 |               |
| Do.....                                                       | 5 1865     |             |               |
| Boston Bonds.....                                             | 4 1/2 1860 |             |               |
| Chicago.....                                                  | 6 1873-7   | 92 95       |               |
| Cleveland.....                                                | 6 1879     | 103 105     |               |
| Cincinnati.....                                               | 6 1860-92  | 96 96 1/2   |               |
| Do.....                                                       | 6 1897     |             |               |
| Do.....                                                       | 5 1884     |             |               |
| Do W. W.....                                                  | 6 1865     |             |               |
| Covington.....                                                | 6 1857     | 80 80       |               |
| Jeffersonville.....                                           | 6 1860     | 25          |               |
| Louisville.....                                               | 6 1860     | 86 87       |               |
| Memphis.....                                                  | 6 1882     | 72 74       |               |
| New York.....                                                 | 7 1837     | 100 102     |               |
| Do.....                                                       | 5 1855-00  | 96 99       |               |
| Do.....                                                       | 5 1870-5   | 97 100      |               |
| Do.....                                                       | 5 1890     |             |               |
| Philadelphia.....                                             | 6 1869-90  | 89 89 1/2   |               |
| Pittsburgh.....                                               | 6 1869-78  | 81 82       |               |
| Do coupons.....                                               | 6 1863     |             |               |
| Racine.....                                                   | 7 1873     | 85 86       |               |
| St. Louis.....                                                | 6 1870     | 85 86       |               |
| Wheeling.....                                                 | 6 1873     | 70 73       |               |
| COUNTY BONDS.                                                 |            |             |               |
| Bourbon, Ky.....                                              | 6 1861     | 77 80       |               |
| Darke, O.....                                                 | 7 1862     |             |               |
| Fairfield, O.....                                             | 7 1862     |             |               |
| Fayette, Ky.....                                              | 6 1861-3   | 75 75       |               |
| Hancock Co.....                                               | 7 1861     | 70 75       |               |
| Mason, Ky.....                                                | 6 1861     | 73 76       |               |
| McCracken Co. Ky., endorsed by New Orleans and Ohio R. R..... | 6 1866     | 80 85       |               |
| St. Louis.....                                                | 7 1871     |             |               |
| BANKS.                                                        |            |             |               |
| OHIO.                                                         |            |             |               |
| American Exchange Bank, N. Y.....                             |            | 118         |               |
| Ohio Life Insurance and Trust Co.....                         |            | 95 100      |               |
| Washington Insurance Co.....                                  |            | 84 85       |               |
| City Insurance.....                                           |            | 70          |               |
| Cincinnati Insurance Co.....                                  |            | 84          |               |
| National Insurance.....                                       |            | 75 80       |               |
| KENTUCKY.                                                     |            |             |               |
| Bank of Kentucky and Branches.....                            |            |             |               |
| Northern, and Branches.....                                   |            | 100         |               |
| Southern, and Branches.....                                   |            |             |               |
| Bank of Louisville.....                                       |            | 93          |               |
| Kentucky Trust Co.....                                        |            |             |               |
| Farmers' Bank of Kentucky, ex div.....                        |            | 102 108     |               |
| Commercial Bank of Kentucky.....                              |            |             |               |
| INDIANA.                                                      |            |             |               |
| State Bank and Branches.....                                  |            |             |               |
| TENNESSEE.                                                    |            |             |               |
| State Bank and Branches.....                                  |            |             |               |
| Union.....                                                    |            |             |               |
| Planters.....                                                 |            |             |               |
| LAND WARRANTS.                                                |            |             |               |
| 60 acre warrants, per acre.....                               | Buy's      | Sell's      |               |
| 80 acre warrants.....                                         | 0 95       | 1 00        |               |
| 40 acre warrants.....                                         | 0 95       | 1 00        |               |
| 120 acre warrants.....                                        | 0 90       | 0 95        |               |



## RATES OF EXCHANGE.

| Place.            | Time.      | Buy'g | Sell'g. |
|-------------------|------------|-------|---------|
| On New York.....  | Sight..... | par   | ¼       |
| Boston.....       | Sight..... | par   | ¼       |
| Philadelphia..... | Sight..... | par   | ¼       |
| Baltimore.....    | Sight..... | par   | ¼       |
| New Orleans.....  | Sight..... | par   | ¼       |
| England.....      | .....      | 109   | 109½    |

## SPECIE.

|                              |         |   |         |
|------------------------------|---------|---|---------|
| California clean, \$ oz..... | \$17 60 | @ | \$17 65 |
| Spanish Doubloons.....       | 16 75   | @ | 16 75   |
| Patriot Doubloons.....       | 15 75   | @ | 15 80   |
| Sovereigns*.....             | 4 86    | @ | 4 88    |
| Guineas.....                 | 5 00    | @ | 5 00    |
| American, new.....           | 1 00    | @ | 1 00    |
| American, old.....           | 1 06    | @ | 1 06    |
| Portuguese.....              | 1 00    | @ | 1 00    |

## SILVER.

|                        |       |   |       |
|------------------------|-------|---|-------|
| American Dollars.....  | 1 03½ | @ | 1 04  |
| Spanish Halves.....    | 1 03½ | @ | 1 04½ |
| Spanish Dollars.....   | 1 14  | @ | 1 14  |
| Spanish Quarters.....  | 1 00  | @ | 1 01  |
| Mexican Dollars.....   | 1 05½ | @ | 1 05½ |
| Five Franc pieces..... | 97    | @ | 97½   |

\* The standard English value attributed to the Sovereign is \$4.44, in London. This with exchange added, say from 9½ to 11 per cent., gives the American value of the English coin.

## LONDON QUOTATIONS

OF

## AMERICAN STOCKS AND BONDS.

FROM THE WEEKLY PRICE CURRENT

OF

E. F. SATTERTHWAITE, STOCK BROKER, LON.

Dec. 21, 1855.

|                                                        |     |    |
|--------------------------------------------------------|-----|----|
| Belvidere, Del., guar. 1st mort., conv.....            | @   | 87 |
| Chicago & Rock Island, Mort., conv. 1858,.....         | "   | 80 |
| Cin. Ham & Dayton, 2d mort.,.....                      | "   | 96 |
| Erie, 3d Mortgage, 1853,.....                          | 83  | "  |
| " Sinking Fund,.....                                   | 78  | "  |
| " conv. 1852.....                                      | "   | 90 |
| Grand Trunk (Canada) Debenture,.....                   | 80  | "  |
| Great Western " conv.,.....                            | 122 | "  |
| " non-conv.,.....                                      | 105 | "  |
| Illinois Central, 1st Mort., 7½,.....                  | 75  | "  |
| " with option 70 per cent. ....                        | 76  | "  |
| Joliet & Nor. Ind. Gua. Mich. Cent. & Ill. Cent.,..... | "   | 78 |
| Little Miami 1st Mort. not conv. 6's.....              | "   | 80 |
| Marietta and Cincinnati, 1st Mort.,.....               | 93  | "  |
| Michigan Central, conv., 8's, 1860,.....               | 93  | "  |
| " do do 1869.....                                      | 95  | "  |
| N. York Central. No Mort. Not conv., 6's 79.....       | 81  | "  |
| " conv., 7's.....                                      | 93  | "  |
| Ohio and Mississippi, 1st Mort.,.....                  | 75  | "  |
| Ohio and Pennsylvania, Income 1872.....                | 75  | "  |
| Panama No mort. conv. 1866.....                        | 85  | "  |
| Pennsylvania, 1st Mort., conv.,.....                   | 88  | "  |
| " Sterling, 2d Mort.,.....                             | 88  | "  |
| Staubenville and Ind., 2d Mort.,.....                  | "   | 90 |

The quotations given are sterling quotations. The American value is to be obtained by adding on exchange generally about 10 per cent.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,

MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON &amp; HOLMES.

For the week ending February 13, 1856.

## BONDS.

|                                                                                           |             |
|-------------------------------------------------------------------------------------------|-------------|
| \$6,000 Cincinnati, Wilmington & Zanesville R. R. Co. 7 per cent. 2nd Mortgage Bonds..... | 62          |
| 1,500 Covington & Lex. R. R. Co. 6 per cent. Income Bonds.....                            | 41          |
| 4,000 Covington & Lex. R. R. Co., 7 per cent. 2nd Mortgage Bonds.....                     | 67½         |
| 2,000 Little Miami R. R. Co. 6 per cent. 1st Mortgage Bonds.....                          | 80 and int. |
| 1,000 Cin. Western R. R. Co. 8 per cent. Real Estate Bonds due in 1863.....               | 42½         |
| 3,000 Little Miami R. R. Co. 7 per cent. Bonds due 1st July, 1858.....                    | 95          |
| 6,000 Ohio & Mississippi R. R. Co. 7 per cent. 2d Mortgage Bonds.....                     | 42          |
| 1,000 Indianapolis & Cin. R. R. Co. 7 per cent. 2nd Mortgage Bonds.....                   | 77½         |
| 3,000 Hillsboro' & Cincinnati R. R. Co., 7 per cent. 1st Mortgage Bonds.....              | 50          |
| 395 Little Miami R. R. Co., Dividend Scrip, June issue.....                               | 90          |
| 1,000 Columbus & Xenia R. R. Co., Dividend Bonds.....                                     | 90          |
| 1,800 Indianapolis & Cin. R. R. Co. 7 per cent. Dividend Bonds.....                       | 68          |

## STOCKS.

|                                        |    |
|----------------------------------------|----|
| 104 Shares Ohio & Miss. R. R.....      | 6  |
| 500 " do do.....                       | 5½ |
| 125 " do do.....                       | 5  |
| 40 " do do.....                        | 4¾ |
| 444 " do do.....                       | 4¾ |
| 439 " do do.....                       | 4¾ |
| 250 " do do.....                       | 4  |
| 10 " Eaton & Hamilton.....             | 25 |
| 160 " Cin. & Chicago.....              | 9  |
| 20 " Cin., Hamilton and Dayton.....    | 62 |
| 50 " Columbus & Xenia.....             | 84 |
| 36 " Indianapolis & Cin. R. R. 53..... | 90 |
| 15 " Little Miami.....                 | 18 |
| 100 " Ohio Central.....                | 30 |
| 62 " Bellefontaine & Indiana.....      | 8½ |
| 173 " Cin. & Chicago.....              | 6¾ |
| 163 " Ohio & Miss.....                 | 6¾ |
| 100 " do.....                          | 6¾ |

## Monetary and Commercial.

During the past week little of interest has transpired in our city worthy of remark with the single exception of a change in the weather, which gave indication of a gradual and certain thaw. To-day, however, is again cold and the thawing out time is put off a little longer. Provisions are dull. Dealers, in general, are awaiting developments from the East.

Our Eastern advices are of the most interesting character. The peace news from Europe has set the spirit of speculation, so long repressed, free again, and especially in stocks, dealers are running wild. Since the reception of the news, nearly all the stocks on the list have risen from 3 to 15 per cent. Transactions are large and the market buoyant. In the event either of peace, or continued war, there is reason to believe that parties purchasing on the rise will lose.

In England we have to notice the same features. E. T. Satterthwaite, of London, in his circular for Jan. 18, says:

"Since our last the intelligence of the acceptance by Russia, of the terms of peace offered by the Allies has produced an extraordinary change in Consols and all English and French securities. The effect of peace operates so directly on our own Stocks that attention has hitherto been almost exclusively directed to them, and we have very little activity to note in American Securities. The sellers at low prices, have however, in most cases withdrawn their orders, or raised their limits to prices more in accordance with the actual New York rates. The Bonds of the Illinois Central Railroad are in strong request at higher rates with very few offering. The Shares have been done at 4½, and close buyers at 4 discount.

## NEW YORK STOCK SALES, FEB. 8.

|                                      |      |
|--------------------------------------|------|
| \$3,000 North Carolina 6's.....      | 98½  |
| 2,000 Missouri 6's.....              | 85   |
| 3,000 Erie conv., 71.....            | 81   |
| 7,000 " 75.....                      | 97½  |
| 2,000 Hudson River 1st mort.....     | 96½  |
| 40,000 Ill. Cent.....                | 85½  |
| 2,000 Ill. Cent. F. B's with pr..... | 87½  |
| 2,000 N. Y. Cent. 6's.....           | 86   |
| 10,000 " 7's.....                    | 101  |
| 6,000 Chicago & R. I.....            | 91   |
| 2,000 L. Erie & Toledo 1st mort..... | 74½  |
| 575 Shares N. Y. Central.....        | 91   |
| 175 " Galena & Chicago.....          | 108  |
| 1,700 " Cleveland & Toledo.....      | 75   |
| 160 " Chic. & R. I.....              | 91½  |
| 1,000 " Erie.....                    | 54½  |
| 400 " Reading.....                   | 88½  |
| 100 " Hudson River.....              | 31   |
| 40 " Mich. Central.....              | 92   |
| 250 " M. ch. So. & No. Ind.....      | 94½  |
| 100 " Panama.....                    | 101½ |
| 50 " Cleve., Col. & Cin.....         | 100½ |
| 45 " Ill. Cent.....                  | 96   |
| 50 " Milwaukee & Miss. R. R.....     | 84   |

## SOUTHERN PACIFIC,

OR,

## Texas Western Railroad Co. Agency.

THE undersigned, Agent for the Texas Western Railroad Company, will furnish for a short time only, the full paid 5 per cent. stock of said Company on the usual terms of two dollars on each share of \$100, and balance as instalments mature, in 6 semi-annual payments, 50 cents on each share. The project is fully under way and has been sufficiently advertised for every one to understand. To parties wishing to subscribe, I can furnish them full explanations.

Feb. 14.

EDGAR CONKLING,  
106 West Fourth Street Cin.

J. B. GREEN, D. S. GREEN.

CINCINNATI RAILWAY  
CHAIR WORKS,  
ESTABLISHED JAN., 1852.South Side Congress St., East of Canal,  
CINCINNATI, OHIO.

J. B. GREEN & BRO. PROPRIETORS,  
WE have in use improved machinery, capable of turning out fifty tons per week, and will contract on favorable terms, with responsible parties, to manufacture any amount of

## Wrought Iron Chairs.

which we warrant of the best quality and the most perfect fit and finish, with a smooth, level bearing in the cross ties.

Engineers, Trackmasters and Railroad men in general, will be furnished with samples by addressing a line to  
J. B. GREEN & BRO.  
Feb. 14.

## NOTICE TO CONTRACTORS.

LOUISVILLE AND FRANKFORT RAILROAD  
SUPERINTENDENT'S OFFICE.  
Louisville, Ky., Jan. 30, 1856.

PROPOSITIONS are requested for the rebuilding of the masonry and superstructure of the Bridge across the Kentucky river at Frankfort, Ky. The superstructure will be near four hundred and fifty feet in length and the depth of water in the river near thirty feet.

Parties offering designs must accompany the same with detailed drawings.

Persons desirous of making propositions will please communicate immediately with the undersigned, at Louisville, Kentucky.

Feb. 7-1mo.]

SAMUEL GILL,  
Supt L. and F. R. R.

## PAGE'S

## PATENT PORTABLE CIRCULAR SAW MILLS.

THE subscribers are manufacturing, under patent, the above Mill in connection with their Improved Ratchet Double Setting Head Blocks.

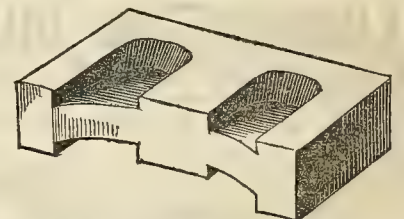
They also keep on hand a full and complete assortment of Cast Steel Saws of their own manufacture, Saw Mandrills, Shingle Machines, &c.

Office No. 15 Walnut St., Cincinnati, Ohio.

Feb. 7.]

LEE &amp; LEAVITT.

## CONKLING'S



## PATENT SCIENTIFIC BRICK.

The Subscriber offers for sale, by State and County rights, the right to manufacture and use his PATENT SCIENTIFIC BRICK.

CHARACTER OF THE BRICK.—This improvement consists in moulding and pressing Bricks in such a form as to secure the least exposure of the mortar to the weather, which seriously injures its durability and appearance, and also to provide for the greatest possible cohesion of the mortar to the brick internally, thereby securing the greatest solidity of structures.

MANUFACTURE OF THE BRICK.—The form of these Brick is adapted to all qualities and sizes of Bricks and building blocks of whatever material. They require no more skill or labor in manufacture than the ordinary form. For Mould Brick, the cavities are made only on the lower side, but deeper, by fastening two pieces of wood of suitable shape at the bottom of the mould. The top of the Brick is cut off as usual. For Pressed Brick, the cavities may be made on one or both sides, generally on one side only, leaving the upper side flat to receive a very thin layer of mortar or cement. These Bricks take from eight to ten per cent. less material than ordinary Brick.

BURNING OF THE BRICK.—These Brick are burnt in kilns as usual, but owing to the cavities the heat circulates more freely and thoroughly than in ordinary Brick, and burns the Brick more uniformly and quicker than the ordinary form. A saving of more than twenty per cent. of time and fuel is effected by this improvement.

LAYING THE BRICK.—They are laid as expeditiously as common Brick, and in the same manner, with as little mortar or cement between joints as is practicable to cement the surfaces and form a level bed for the courses, the whole to be grouted with thin mortar poured in the cavities. Walls thus made are solid and strictly fire-proof, and at least one-fourth stronger than walls of the same thickness, built of ordinary Brick.

For further information and terms of sale, address, enclosing postage stamp to pay answers,

EDGAR CONKLING,  
106 West Fourth Street, Cincinnati, Ohio.



# Newport Iron Works,



OPPOSITE CINCINNATI, OHIO.

The above establishment is now manufacturing **Locomotive Tyre, Locomotive Car and Tender Axles, Boiler, Tank and Sheet Iron.** For all of which they are prepared to execute orders promptly and satisfactorily. They particularly solicit orders from Railroad Companies and Builders in the West, for

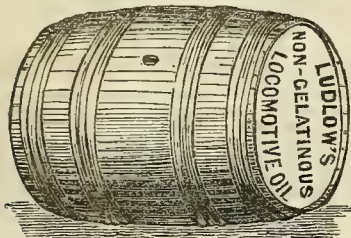
## LOCOMOTIVE TYRE AND AXLES,

All of which are made from the Fagot, of first class material, and formed entirely under the Hammer. The Tyres are of single weld, and finish equal to any made in the country. All the manufactures of this establishment are branded "NEWPORT" and warranted to give satisfaction. The patronage of Customers in the West is solicited. Samples of manufacture may be seen, and orders addressed to

**A. S. WINSLOW**, 9 and 11 West Second St., Cin., or to **DANL. WOLFF**, at the Works, Newport, Ky.

JANUARY, 1856.

**W. D. LUDLOW'S**  
COMPOUND, NON-GELATINOUS LOCOMOTIVE



## LUBRICATING OIL.

THIS Article is a combination of Lubricating Oils, comes cheaper than any other Pure Oil. Warranted not to chill in any Climate, and is purely non-gelatinous.

Office No. 19 Front St. East of Broadway, Cincinnati, Ohio.

WM. R. FEE, F. W. FEE, M. GOODMAN, F. GOODMAN.

**FEE, GOODMAN & CO.,**  
MANUFACTURERS OF  
**NON-GELATINOUS OILS,**  
For Locomotive Head Lights, Machinery, &c.  
CORNER OF 3d St. & MIAMI CANAL,  
CINCINNATI, OHIO.

THE great progress made in the improvement and extension of Railroads, Steamboats, Machinery &c., has made the subject of Oils one of great importance. For several years it has claimed the attention of scientific men to investigate and experiment upon the various kinds of Vegetable and Animal Oils, in order both to supply the want of, and supersede the best article now in use, which is *Sperm Oil*, but hitherto it has been without success. We have at length, by a process discovered by ourselves, succeeded in removing the Glutinous matter from all kinds of Oils, which has been the great desideratum to be obtained, and now have made extensive preparations for the manufacture of

## COTTON SEED OIL.

This Oil is equal to, and much less expensive than *Sperm*; and will remain fluid at as low a temperature, and give as bright, white, and pure light, as any other pure burning Oil now in use.

We are also manufacturing a NON-GELATINOUS LOCOMOTIVE LUBRICATING OIL, which is pronounced by all who have used it, to be superior to any other. It is not only superior, but is cheaper, and has none of those injurious qualities, which eat and destroy machinery as the Combination Oils now in use are liable to do.

This oil is perfectly pure and non-gelatinous, and will not gum nor chill in any climate, and will wear as long as the more costly.

All we ask is, give our Oils a fair trial. We guarantee them to be such as we represent. We refer to the different railroads and printing Offices of this city, for their success.

Cincinnati, Jan. 31, 1856.

## RAILROAD MAP

OF THE  
UNITED STATES.

THE latest and best Railroad map of the United States, published for this office, is now ready and for sale at the following prices:

|                                                          |        |
|----------------------------------------------------------|--------|
| Plain Lithograph.....                                    | \$0.50 |
| Colored Boundaries.....                                  | 0.75   |
| Backed with muslin and varnished ready for moulding..... | 1.50   |
| Mounted.....                                             | 2.00   |

Any one enclosing us the above amount will receive a copy of the map by return mail.

**T. WRIGHTSON & CO.**  
Publisher R. R. Record,  
167 Walnut st., Cin., O.

Jan. 31, '55]

## Railroad Printing.

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

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## AUCTIONEERS AND BROKERS,

Sales Daily, at 12 o'clock A. M.

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At Private Sale, a choice variety, of Stocks, Bonds, etc.

## RAILROAD MAP OF UNITED STATES

NOW READY.

A NEW RAILROAD MAP of the United States is now ready, and for sale, by

**E. MENDENHALL,**  
3 College Hall, Cincinnati, O.  
Jan. 31, '55]

## TEXAS

### Western Railroad Agency,

Office 73 West Third st., Cin., O.

**SAMUEL A. SARGENT, AGENT.**

IN answer to the numerous inquiries by letter and otherwise, as to how long the opportunity will be afforded for procuring the stock of the Company at the present limit of five per cent., and also to the inquiries for other and general information in relation to the Road and condition of the Company. I would state that there remains of the \$25,000,000 (gross amount) of Stock authorized to be issued at the five per cent. limit, less than \$2,000,000 unsold. That, in the event of its becoming necessary to issue more Stock than this amount, which will only be in case of an entire exhaustion of all the other means of the Company, and in that case it is not to be issued at any less assessment than fifty cents on the dollar, and this Stock to share equally only with the other in the dividends and profits of the road and lands.

The capital stock of the Company is divided into shares of one hundred dollars each, and each certificate contains the statement of the fact, that no further call or assessment over or beyond the five per cent. can or shall be made on the stock represented by the certificate. Certificates of stock are issued on the payment of two per cent., and the balance to make up the five per cent., is payable in installments of half of one per cent. each, on the first Mondays of July and January each year, until January, 1859. Those paying two-and-a-half, or the whole five per cent., are entitled to interest at seven per cent. on the actual amount paid until dividends are paid from the earnings of the Road, which will be made on the whole amount or face of the certificate of stock.

The Company have donated to them by the State of Texas, 10,240 acres of land per mile, for every mile of road built, to receive their first lands (256,000 acres,) immediately upon the completion of the first twenty-five miles, and afterwards as they proceed with the work every five miles, until the whole road through Texas to El Paso, 783 miles, is completed. The lands to be selected by the Company, along the line of the road, or anywhere within a breadth of 60 miles each side of the road. It is believed these lands will be more than sufficient for the building and equipping a first class Railroad through the State. And as the stockholder has an equal interest in the lands as well as the road, a large surplus may reasonably be expected from the sale of the surplus lands.

The grading of the entire road from a point twenty miles west of Shreveport, on the eastern line of Texas where it intersects the Vicksburg and Shreveport road to El Paso on the Rio Grande, 783 miles, is now under contract to responsible and efficient contractors. The work has already been commenced and now being vigorously prosecuted with a large force. This road is located on the line of the most direct and practicable route towards California, being near the latitude of 32 deg. The estimated cost of construction for a railroad on this latitude is ascertained from actual surveys and estimates, made by order of Congress, at great expense, and published by the Secretary of War in his late report, to be far less than any of the other five different routes to the Pacific.

And the estimate of Col. A. B. Gray, who recently surveyed this route, is less than \$25,000,000 from El Paso, 821 miles, to San Diego, one of the best harbors on the Pacific Ocean. The road on this route would be entirely free from any obstructions of ice or snow the whole year. With these superior advantages, it cannot be doubted that the Pacific Railroad, which has now become an acknowledged necessity for the country, will be constructed on this route, and at an early day. When it is considered that the through business required on this road when completed, must, from necessity, far exceed any other road in this country—that it passes through a fine agricultural and grazing country—unequalled in climate—that the Illinois Central road has been built under the same system of land grants as this, with only about 1/2 the quantity of land granted to our road—that the stock of their road is now selling at from 90 to 95 cents on the dollar—it is confidently believed the net profits to the stockholders of the Texas Western Railroad Company will largely exceed those of any other Railroad Company ever chartered in the United States.

I would further state that the stock is being disposed of rapidly, and those persons who contemplate securing it at the present rates, would do well to do so at once, as they may soon find they will be obliged to pay large advances on the Company's rates.

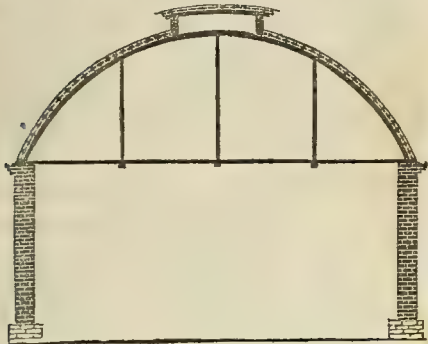
Pamphlets containing the charter of the Company and extracts from the report of the Secretary of War, upon the survey of five different routes to the Pacific, accompanied with a map, and also Col. A. B. Gray's report in full of the survey of the route, of latitude 32 deg. can be procured by application at the office.

Jan 31-1m

**SAMUEL A. SARGENT.**



## MOSELEY'S Tubular Wrought Iron ARCH ROOFS.



OFFICE, NO. 57, WEST THIRD ST.  
CINCINNATI, OHIO.

The supporting parts of these roofs are made in the same manner as Moseley's

### TUBULAR BRIDGING.

The tubes are light and of immense strength, capable of bearing twenty times more burden than will ever go upon them. Such roofs can be built in less than half the time, weigh much less, and cost less than any plan of Iron Supporting now in use, and no more than good wooden Trusses; besides, this plan of roofing gives a fine architectural appearance, is all iron, and proof against injury to walls, etc., by expansion and contraction. We are prepared to manufacture roofing, after this plan of any size and span, in any and all parts of the country, on the shortest notice.

MOSELEY, WINSTON & MOSELEY.

THOS. W. H. MOSLEY,  
Sup. and Engineer.

JOHN BANDON & CO  
Special Contractors

January 1st., 1856]



**BANK NOTE ENGRAVING.**  
DANFORTH, WRIGHT & Co.,  
No. 25 West Third Street, Cincinnati.  
Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

**Rawdon, Wright, Hatch & Edson,**

BANK NOTE

ENGRAVERS AND PRINTERS.

Also, engraved in a style corresponding in excellence with that of Bank Notes—

**RAIL ROAD, STATE, AND COUNTY BONDS,**

BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificate of Stock and Deposit, Promissory  
Notes, Bill and Letter Heads, Visiting and  
Professional Cards, Notarial, County  
and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order  
of a superior quality.

The above office is under the supervision of  
GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.

## U. S. RAILROAD DIRECTORY, FOR 1856,

TO contain the names of the Presidents, Directors, and  
officers of every Railroad in the United States, as  
far as the same can be ascertained. Also, a general al-  
phabetical list of the roads, and lists arranged accord-  
ing to States, showing their termini and length. 1 vol.  
8 vo. of about 240 pages. Price, one dollar.

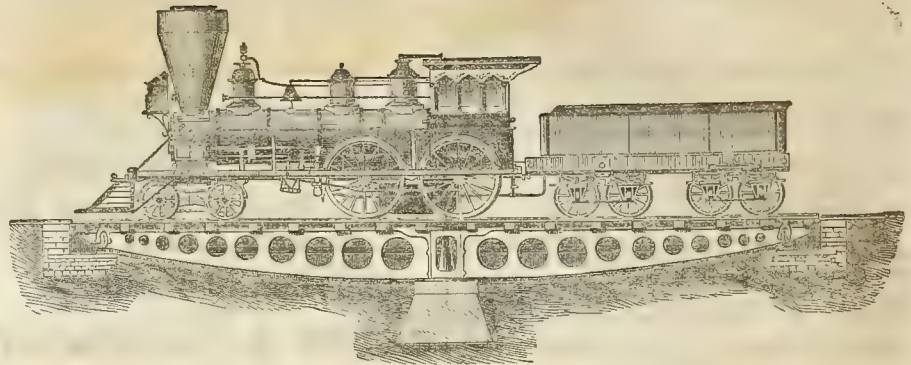
In press, and will be published soon. Orders may be  
addressed to

B. HOMANS,

Box No. 4574, Post Office,  
New York

Jan. 31, 1855]

## William Sellers & Co. —LATE— BANCROFT & SELLERS,



16th Street and Pennsylvania Avenue, Philade'phia,

MANUFACTURE RAILWAY, TURNING AND SLIDING TABLES, and PIVOT BRIDGES, upon a new and economical plan and of any required length. The Turning Tables and Pivot Bridges are fitted with Parry's Anti-Friction Box—thus enabling one man without the intervention of gearing to turn the largest table when loaded with Engine and Tender. Being of iron they are not liable to get out of order, and water within 18 inches of the track, will not impair their efficiency or durability.

### ALSO :

BANCROFT'S PATENT SELF-ADJUSTING HANGER AND PILLOW BLOCK BEARINGS suitable for all kinds of Shafting or Mill gearing. A large supply of this article kept constantly on hand, arranged so as to attach to upright posts, suspended to the under side of beams, to rest upon foundations, or adapted especially to counter-shafts for tools, or other machinery. Cast Iron Grind Stone Boxes, fitted with this bearing and resting on wheels for convenience of moving, also kept constantly on hand. Having probably the largest stock of Pulley Patterns, in the country, they are prepared to furnish castings or finished pulleys at short notice, as, also, shafting, couplings, gear wheels, &c., suitable for all manufacturing purposes fitted up ready for use.

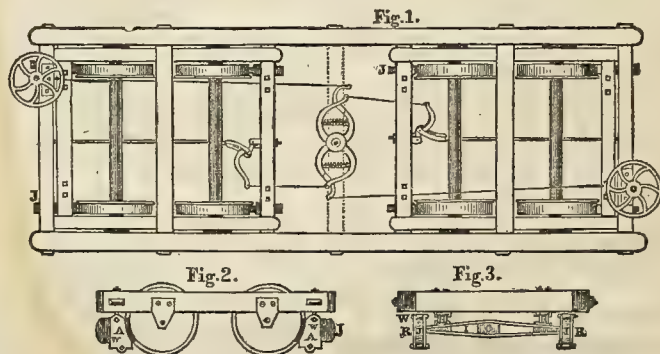
They also continue to manufacture of their well-known class of *Engineers and Machinist's Tools*; such as Horizontal Planing machines, Vertical Planing machines, Lathes, Boring and Turning Mills, Boring Mills, Horizontal drills, Vertical drills, Bolt Cutting machines, &c.

WILLIAM SELLERS.

JOHN SELLERS, JR.

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire Hudson River & Harlem Railroads.

J. P. DERBY, Agent, Cavendish, Vt.



## PRINTING.

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

## RAILROAD IRON.

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via. Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired.  
WALKER & BERRY, Quebec & Kingston, Canada.  
BERRY & WALKER, Liverpool, England.  
Kingston, C. W., Sept. 15, 1855.

## PERU & INDIANAPOLIS R. R.

*Peru, Logansport, Wabash, Rochester, and Indianapolis.*

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays expected, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers.

Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.  
L. N. ANDREWS, Gen. Frght. Ag't  
Indianapolis, October 1, 1855.

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted,) each way, will run on this Road, between Columbus and Urbana. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

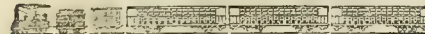
The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.  
Piqua, Sept. 13, 1855. Sept. 29-1f.

## Terre Haute & Richmond R. R.



### Summer Arrangement.

TWO TRAINS DAILY, (SUNDAYS EXCEPTED.)  
Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express in only at Greenville.

Sept 28, 1855 S. HUESTIS Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS  
IN OHIO.

Time as short to the Eastern Cities, as well as  
to Chicago and St. Louis, and Fare as  
Low as by any other Routes.



## Great Miami, [C. H. & D.]

MAD RIVER AND LAKE ERIE,

CLEVELAND & TOLEDO,

AND

## EATON & RICHMOND

RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

### FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo, Chicago, and Cleveland—Same train connects at Dayton for Greenville, Union, &c., and at Forest for Lima, Delphos and Fort Wayne. This is the only direct route to the above places.

Passengers for the East take the cars of the Cleveland and Toledo road at Clyde, go into the same depot and make the same connections as by the Columbus route. As the Lake Shore road depends more upon the trains from the West for their travel, and as this train makes sure connection at Clyde, passengers are less liable to miss the connection at Cleveland than by any other route.

(This train starts by Columbus time which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

### SECOND TRAIN.

Indianapolis Express, at 5 A. M., for Indianapolis, and all points North and West.

(This train also starts by Columbus time.)

### THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest and Bellefontaine for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua, also to Greenville, Union, &c.

### FOURTH TRAIN

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

### FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

### SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

RETURNING.—Trains leave Dayton as follows: at 5.15 and 7.45 A. M., 3.45 and 7.25 P. M.

Trains leave Richmond at 7.00 and 10.30 A. M., and 6.40 P. M.

Trains leave Hamilton at 5.54, 6.40 and 9.00 A. M., and 2.30, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Sup't. C. H. & D. R. R.  
E. F. OSBORN, Sup't. M. R. & L. E. R. R.  
E. B. PHILLIPS, Sup't. C. & T. R. R.  
D. M. MORROW, Sup't. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m

New York, Aug. 16th, 1855.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,  
AND EATON & HAMILTON R. R.

TO CHICAGO, in..... 15 HOURS.  
TO ST. LOUIS, in..... 31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,  
LAFAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis: connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago,—arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis..... \$3 50

" Lafayette..... 5 50

" Terre Haute..... 5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM H. SMITH, Conductor.  
feb. 8-ly WnRROpeSute M MterODn i,pn

## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDER CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished within a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH,  
South-western Car Works.

Madison, Indiana. May 11.

## GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION & FORCE PUMP

AND

## Compound Steam Pumping Engine,



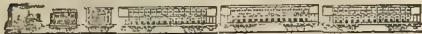
WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions. Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y



**Baltimore & Ohio Railroad.**

380 MILES BETWEEN WHEELING AND BALTIMORE.

This Road was opened to the Ohio River in the spring of 1853, and has already established a high character with the business community of the West. Its facilities for the transportation of freights are already superior to those of any other great through line—while the attractions of the country through which it runs, and its many admirable provisions for the expedition, comfort and safety of travelers, it has received great favor as a passenger road.

The late completion of the Central Ohio Railroad, from Columbus to Bellaire on the Ohio, 4 miles below Wheeling, affords a direct rail connection with the entire West.

**FOR PASSENGERS BY THIS ROUTE,**  
**Through Tickets from all Parts of the West,**

ARE NOW SOLD IN

Cincinnati, Louisville, Indianapolis, St. Louis, Chicago, Toledo, Detroit, Cleveland, Columbus, Zanesville and other Cities.

AT ALL OF WHICH ARRANGEMENTS HAVE BEEN EFFECTED

**For Sending Travelers Direct to WASHINGTON, BALTIMORE, PHILADELPHIA, NEW YORK, and other ATLANTIC CITIES.**

**FOR FREIGHTS IN EITHER DIRECTION**  
The fullest accommodations are provided. In motive power and Cars, the company has abundant resources, which are being further extended to meet the demands of Western Trade. In the dispatch and regularity of transport, and in the careful landing of property, this road challenges a comparison with its rivals. At Baltimore, the road connects directly in the streets and at the wharves with the

**Philadelphia and New York Railroads,**

The numerous Steamers of the Baltimore Steamship Co., and the Merchants and Miner's Line to New York and Boston, the Ericson Steamers, by Canal, to Philadelphia and New York, And various other Lines of Steamers and Sailing Vessels to the Eastern Ports, and to Richmond, Norfolk, Charleston, Savannah, etc.

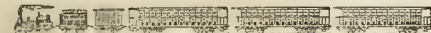
J. B. FORD is the Company's Receiving Agent at Wheeling.

WM. G. HARRISON, JOHN H. DONE,  
President, Mast. of Transportation, Baltimore.

je. 84

## TO LOUISVILLE IN SIX HOURS.

Change of time for Indianapolis, Chicago, and all the Northern and Western Cities.

**OHIO AND MISSISSIPPI RAILROAD.**

ON MONDAY, JULY 16TH, AND UNTIL FURTHER notice, the Trains will depart from Wood street station as follows:

FOR LOUISVILLE—At 8.30 A. M., and 3.45 P. M.  
FOR INDIANAPOLIS—At 6.45 A. M. and at 4 P. M.  
FOR LAWRENCEBURG AND AURORA—At 8.30 A. M., 3.45 P. M. and 6 P. M.

Freight—For Louisville, Indianapolis, Peru, Chicago, Terre Haute, Vincennes, Evansville, and all intermediate stations, at 7 A. M.

For further information in regard to Freight, apply at the Office, No. 4 East Front Street, or at the Station on West Front, near foot of Columbia Street.

For TICKETS apply at offices, South East corner of Fourth and Vine; No. 4 East Front Street; Station on West Front Street, or to the offices of the Indianapolis and Cincinnati Railroad Co. S. S. POST,

Chief Engineer and Superintendent.  
Omni-busses run from the principal hotels, and call on orders left at the Ticket Offices.

Omni-busses for 6 P. M. train will leave from the corner of Fourth and Vine Streets, and No. 2 Burnet House, only.

W. S. BABCOCK,  
Ag't Cin. and St. Louis Omnibus Line,  
Office No. 2 Burnet House.

**LOCOMOTIVES FOR SALE.**

OFFICE VIRGINIA LOCOMOTIVE AND CAR MANUFACTURING COMPANY.

Alexandria, Va.

**FOR SALE.**—Six Coal Burning Freight Engines, 23 tons weight; 10 wheels, 6 drivers and truck. Two of the Engines now ready for delivery, and four in the course of three months. Our Coal Burners are used on the following road.

Baltimore & Ohio, Pennsylvania State road (Portage) Pennsylvania Central; Manassas Gap & Orange & Alexandria, Georges Creek Co.'s road, Central Ohio, and Ohio & Penna.; and for their durability and economy of repairs, and economy of fuel, we refer to the officers of the above roads.

Orders for freight or passenger engines deliverable on or after the first of December, solicited.

Address, **THATCHER PERKINS,**

President.

Also, for sale, two Twenty Horse Power Stationary Engines.

Aug. 9 41

1856. Winter Arrangement, 1856  
COMMENCING MONDAY, JAN. 7.



## LITTLE MIAMI RAILROAD, VIA COLUMBUS. EXCLUSIVELY AN EASTERN ROUTE.

*The Quickest—Shortest—Most Direct*

Lightning Express through to Columbus, Crestline, and Cleveland, without change of cars. By any other route passengers and baggage change cars.

The only route with three daily trains to Cleveland, Dunkirk, and Buffalo, by the uniform gauge and without ferries.

The only route with reliable connection to Pittsburg. The only route to Wheeling and Steubenville.

BY 6 O'CLOCK A. M. TRAIN.

Wheeling Passengers Dine at Zanesville.  
Pittsburg Passengers Dine at Crestline.  
Dunkirk and Buffalo Passengers Dine at Cleveland, and dine the following day in New York, Philadelphia, or Washington City. Breakfast at Baltimore.

| Time via. Little Miami Route | Cincinnati  |
|------------------------------|-------------|
| To Columbus in.....          | 3 3/4 hours |
| To Cleveland in.....         | 8 1/2 "     |
| To Dunkirk in.....           | 14 1/2 "    |
| To Buffalo in.....           | 16 "        |
| To Albany in.....            | 26 "        |
| To New York in.....          | 32 "        |
| To Boston in.....            | 35 "        |
| To Crestline in.....         | 6 "         |
| To Pittsburgh in.....        | 14 "        |
| To Philadelphia in.....      | 30 3/4 "    |
| To Wheeling in.....          | 10 "        |
| To Baltimore in.....         | 26 1/2 "    |
| To Washington in.....        | 29 "        |
| To Steubenville in.....      | 12 "        |

Baggage checked from Cincinnati to Wheeling, Baltimore, Pittsburg, Cleveland, Dunkirk and Buffalo.

The Little Miami is the eastern Depot.

FOUR DAILY TRAINS.

FIRST TRAIN.—Cleveland, Pittsburgh, Steubenville and Wheeling Lightning Express, leaves Cincinnati at 6 o'clock A. M., for all the Eastern cities.

ALSO: Springfield and Delaware; Circleville, Lancaster and Zanesville, Blanchester and Chillicothe.—This train stops between Cincinnati and Columbus at Loveland, Morrow, Xenia and London only.

THROUGH TO Columbus, Crestline and Cleveland without change of cars.

SECOND TRAIN.—Express Mail, leaves Cincinnati at 10 o'clock A. M., for all the Eastern cities.—This train stops at all points between Cincinnati and Columbus.

THIRD TRAIN.—Accommodation, leaves Cincinnati at 3.30 o'clock P. M., for Springfield, Circleville, and Lancaster; Blanchester, and Chillicothe; Hillsborough. This train stops at all points between Cincinnati and Springfield.

FOURTH TRAIN.—Cleveland, and Pittsburgh Night Express, leaves Cincinnati at 6 P. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; Crestline, Pittsburgh, Baltimore, Philadelphia and New York. This train stops at all points between Cincinnati and Columbus.

One Train on SUNDAY, at 2.30 o'clock P. M. for Columbus.

Trains run by Columbus time—7 minutes faster than Cincinnati.

**THROUGH TICKETS.**

And all information can be obtained at the new offices; No. 2 Burnet House Building, W. L. O'BRIEN, Ticket Agent; No. 177, front office, Gibson House Building, ALEX. HAMILTON, Ticket Agent; or at the Old Office south-east corner of Broadway and Front Streets, opposite Spencer House, or at the Eastern (Little Miami) Depot, East Front Street.

Office hours from 4 1/2 A. M. until 9 1/2 P. M.

P. W. STRADER, General Agent

**THE OMNIBUS LINE**

Calls for passengers at all the principal Hotels for each and every train. By leaving directions at either of the above offices, they will call for passengers in all parts of the city, without fail.

jan 18.

H. B. RUGGLES, Conductor

**Insurance Agency.**

As Agent of the above and other highly responsible Insurance Companies, I am prepared to take Risks on

DWELLINGS, STORES, WAREHOUSES,

and their contents,

**STEAMBOATS, BARGES,**

and their Cargos,

Manufacturing Establishments,

Railroad Depots and Station Houses,

at current rates.

L. A. OSTROM,

Aug. 16.

No. 6 West Third Street, Cincinnati.

**Covington and Lexington Railroad.**

DIRECT ROUTE TO THE INTERIOR OF KENTUCKY! AND THE MOST COMFORTABLE ROAD FOR TRAVEL IN THE WEST.

Being ballasted with broken rock is entirely free from Dust.—No Accident endangering the life of any Passenger has ever occurred.

THROUGH TICKETS, sold at the Ticket offices in Lexington, Paris and Covington, to New York, Boston, Philadelphia, Baltimore, Washington City, Richmond and Winchester, Va., Chicago, Rock Island, Galena, St. Louis, Indianapolis, Terre Haute, Vincennes and Lafayette.

THROUGH TICKETS TO LOUISVILLE, by way of Lexington and Frankfort, and Louisville and Frankfort Railroads, FOUR DOLLARS.

Passengers will find this a very pleasant route, as it passes through the most highly cultivated and richest portion of the State of Kentucky.

TWO DAILY TRAINS EACH WAY, SUNDAYS EXCEPTED! On and after Monday, October 29, 1855, and until further notice, Trains will run as follows:

THE EXPRESS TRAIN leaves the Covington Depot at 7.25 A. M., stopping at all regular stations, and arriving at Lexington at 12.15 P. M.

Returning, leaves Lexington at 2 o'clock P. M., and arrives at Covington at 6.45 P. M.

Through passengers by this train connect at Paris with stage lines to Maysville, Winchester, Mount Sterling, Carlisle, and Georgetown; at Lexington with Stage lines to Nicholasville, Bryantsville, Danville, Perryville, Lebanon, New Market, Saloma, Campbellsville, Greensburg, Monroe, Blue Spring Grove, Mammoth Cave, Glasgow, Lancaster, Crab Orchard, Richmond, Rogersville, Kingston, London, Barbourville, Cumberland Gap, Tazewell, Bean's Station, and connecting with Daily Stage Lines through Virginia, North and South Carolina and Tennessee.

THE ACCOMMODATION TRAIN leaves Lexington at 6 o'clock A. M., stopping at all Regular and Flag Stations, and arrives at Covington at 11.30 A. M.

Returning, leaves Covington at 2.30 P. M., stopping as above, and arriving at Lexington at 7.40 P. M.

FREIGHT TRAINS will leave the Depots in Covington and Lexington, daily, at 6.40 A. M.

**RATES OF FARE.**

|                              |        |
|------------------------------|--------|
| Covington to Louisville..... | \$4 00 |
| Covington to Lexington.....  | 3 00   |
| Covington to Paris.....      | 2 40   |
| Covington to Cynthiana.....  | 2 00   |

**FOR THROUGH TICKETS**

And all information, please apply at the Covington and Lexington, and Little Miami Offices, No. 2, Burnet House first door north of Vine; No. 177, Gibson House, or at old Office, South East corner Front and Broadway, directly opposite the Spencer House.

C. A. WITHERS, Superintendent.

P. W. STRADER, Gen'l Agent,  
The Omnibus Line will call for Passengers in any part of Covington, Newport or Cincinnati, by leaving orders at the offices in Cincinnati, where the tickets of the Road are sold, or at our stable on 4th street, between Madison and Scott, Covington.

CLAYTON &amp; GRANT.

S. Wolverton's Omnibus Line will call for passengers in any part of Lexington, by leaving orders at the Offices of the Road.

nov. 15\*

**W. G. ATKINSON,**  
Civil Engineer, Surveyor & Draftsman.  
CUMBERLAND, MD.

RAILROAD routes located, planned, and estimated  
Maps and Reports furnished; Researches made for

Coal, Iron, Copper, Lead, or other Minerals,  
Metals, etc.

Contract work on Tunnels and heavy Graduation estimated and reported in detail. Topographical drawings executed and Lithographs supplied by skillful artists. Mines explored, new Works laid off, and Geological plans prepared.

mar 17

**RAILROAD IRON.****LOCOMOTIVES.**

4,000 Tons rails, 38 to 61 lbs. per yard. 300 tons rails 49 lbs. per yard. 1,000 tons rails 55 lbs. per yard. Also several Locomotives of best manufacture, of any required weight and adapted to any gauge, for sale by

H. H. GOODMAN &amp; CO.,

No. 7 Wall st., N. Y.

Feb. 7, '56-2m.]

**Shortest Route to Indianapolis, Chicago, and St. Louis, by Indianapolis & Cincinnati Railroad.**

VIA LAWRENCEBURG,

IN connection with the Ohio and Mississippi Railroad. Passenger Trains leave Cincinnati at 4.45 A. M., 1.55 P. M. and 4 P. M., connecting with Terre Haute, Lafayette and Peru for afternoon and evening Trains. The 6.30 and 2 P. M. Trains, both connect through via Terre Haute and Vincennes, for Evansville, Cairo and St. Louis, and in advance of all other lines.

Baggage Checked to Chicago.

Office, 31 Main Street, west side, 5 doors north of Madison House.

Cincinnati, Jan. 1, 1855.

SIDNEY RICK.

Agent.



**KENTUCKY LOCOMOTIVE WORKS.**

CORNER OF KENTUCKY AND TENTH STS.

**LOUISVILLE, KY.**

THE Proprietors of the Kentucky Locomotive Works would respectfully inform Railroad Companies and the public generally that, having completed their establishment, they are now prepared to receive and execute orders with fidelity and dispatch.

They will contract for

**Locomotives, Passenger, Baggage, Freight, Gravel and Hand Cars,**

Of every style and pattern, as well as all kinds of Stock and Machinery required for railroads.

Particular attention will be paid to repairing, for which they have every facility.

They are also prepared to contract on favorable terms for building all kinds of Machine Tools, such as Turning Engines, Lathes, Planers, Drills, Slotting, Splitting, and Shaping Machines, of every variety of pattern.

Having also a large FOUNDRY connected with the establishment, orders for Castings are solicited, and will be filled with promptness.

Car Wheels of any pattern can be furnished on short notice. Double and single plate and Spoke Wheels of all sizes constantly on hand.

Communications or orders must be addressed to

OLMSTED, TENNIS &amp; PECK,

je.8-1f Louisville, Ky.

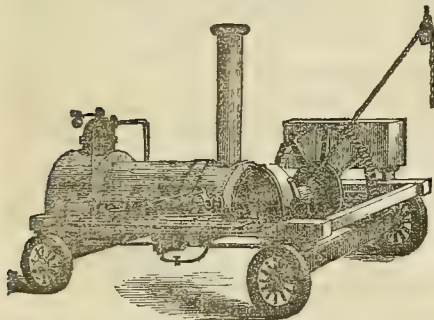
**Norris' Locomotive Works,****PHILADELPHIA.**

ENGAGED for many years in manufacturing Locomotives, offer to Railroad Companies to construct of any plan or size.

**LOCOMOTIVES OF SUPERIOR QUALITY.**

Our facilities for doing work have been largely increased this year, and orders can be executed with dispatch.

RICHARD NORRIS &amp; SON.

**A. L. ARCHAMBAULT'S PORTABLE STEAM****HOISTING & PUMPING ENGINES,**

FOR Loading and Discharging Cargoes, Pile Driving, Raising Iron Ore from Mines, Pumping Water, Driving Ore Washers, Portable Saw Mills, etc. These machines can be removed by a team on an ordinary road. The first Premium (Silver Medal) was awarded by the Franklin Institute at their exhibition in 1851 and 1853, and by the PENNSYLVANIA STATE AGRICULTURAL FAIR, at Philadelphia, in 1854.

Manufactured only by the inventor

A. L. ARCHAMBAULT.

S. E. corner of Fifteenth and Hamilton Streets, (late of 13 Frinker's Alley), Philadelphia. aug2 6m

**Mercurial Steam Gauges.**

THIS GAUGE has been improved and prepared especially for Locomotive Engines, and is believed to be the most reliable Gauge in use.

Experience proves that the expense of a good Steam Gauge is soon saved in fuel. Besides, it is a safeguard against accidents resulting from an excessive pressure of Steam.

After a fair trial of it, in comparison with the Steam Gauges in use, the Ohio Association of Railroad Superintendents adopted the following:

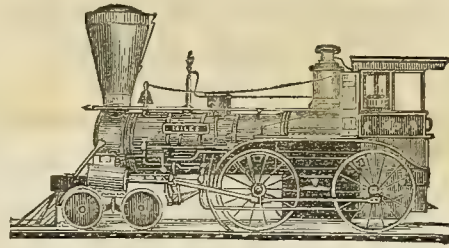
"The Committee, to whom was referred the subject of Steam Gauges, submit the following Report:

"They have made use of different kinds of Steam Gauges, and have become convinced that the Mercurial Gauge, for use on Locomotive Engines, is in all respects the most reliable indicator of the pressure of steam in the boiler—while it is less liable than the Spring Gauges to get out of order; and they, therefore, recommend it to all Railroad companies."

COMMITTEE—MRS. DURAND, FULTON and TILTON.

Manufactured by J. M. BROWN.

At Kirkup's Machine Shop, opposite Little Miami Depot, Cincinnati, O.

**LOCOMOTIVE WORKS.****NILES & CO.,**

CONGRESS STREET, CINCINNATI.

BUILD to order Locomotives of any required size or plan, and are prepared to execute all orders in their line with promptness.

Orders solicited for Iron and Brass Castings, Flue and Cylinder Boilers, Tyres, Tyre Lathes, Planing Machines, and other tools, Shafting, &c. &c.

feb. 13 1855-6m.

**Lightner's Patent Axle Boxes for Railroad Cars**

The attention of Railroad Managers and others is called to this valuable improvement in

**AXLE BOXES.**

The first cost and "fitting up" of these boxes is 20 to 25 percent. below that of most boxes in use. They will save about 75 per cent. in consumption of oil. The construction is simple; they are not liable to become loose, nor "heated" by severe service. The Reservoir is held close to the shaft, and the oil journals, are secure from dust yet easy of access; the brasses may be removed from the journals, while under the car, in a few minutes. Cars furnished with these boxes run from 4 to 5 weeks without replenishing the oil, and are not detained from the road for repairs on one tenth part of the time which is necessary when other boxes are used.

The business of a railroad can be done with a much less number of cars, with these boxes than if any other kind are used.

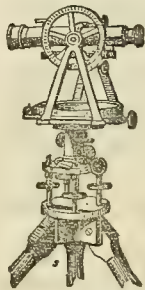
The first railroad men in the country have certified that Lightner's improvements in AXLE BOXES are among the first of the times.

Models and testimony of the above Boxes, may be examined, and arrangements may be made for the right to use the same, with the subscriber,

WILLIAM SHERBURNE,

PRINCIPAL AGENT,

May 1846.\* Office, No. 64 Courtland st., New York.

**MATHEMATICAL INSTRUMENTS.****T. F. RANDOLPH & BRO.,**

N. W. Corner Fifth and Walnut Sts.

No. 1, 2d STORY APOLLO BUILDING,

CINCINNATI, O.,

MANUFACTURERS OF

**Surveyors' & Engineers' Instruments, Theodolites, Transits, Levels, &c.,**

REPAIRING AND ADJUSTING INSTRUMENTS DONE TO ORDER.

Orders promptly attended to.

G. ESCOL SELLERS.....C. D. DANA

**SELLERS & DANA,**

AGENCY FOR THE SALE OF

**Railroad Materials and Machinery,**

THIRD STREET, (west of Burnet House.)

**CINCINNATI, OHIO.**

HAVING OPENED a depot for the sale of all articles used by Railroad Companies, we will fill orders promptly at manufacturers' prices, and are now prepared to furnish

Locomotives, Cars, Car-Wheels, and Axles. Ames'

Tire and Crank Axles, Chairs and Spikes. Locomotive

Head Lights, (of several makers) Car,

Conductor's, Signal, Switch, Stoker and other

Lanterns. Drawbridge and cross Road

signal Lights; Gum Packing and

Hose, assorted Car Trimmings,

Enameled head and seat

Linings, Plated and

White Metal Letters.

—ALSO—

Machinists' Tools,

particularly adapted to

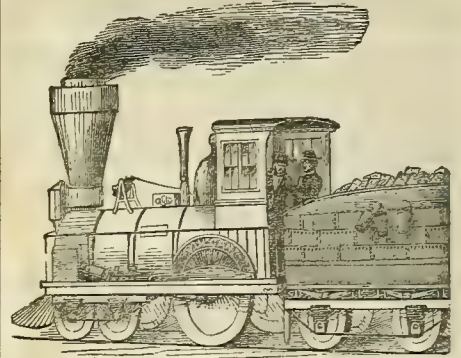
Railroad Work, Mill Work,

Shafting and Shop outfits, Punch-

ing and Shearing Machines, for Boiler

Work; Planers, Lathes, Drills, Portable

Forges, etc., etc. Oak-Tanned Boarding, of superior quality of all sizes.

**Cincinnati Locomotive Works!**

The undersigned are prepared to furnish Locomotives equal in efficiency and durability to the best Eastern manufacture. Also, Shaping and Slotting Machines, suitable for railroad shops. Also, all kinds of heavy forging and casting done at short notice. Also, bolts for bridges cut with dispatch.

ap.20

MOORE &amp; RICHARDSON.

**WASON'S****CAR MANUFACTORY,**

Near the Pittsburgh R. R. Shops,

**CLEVELAND, OHIO.**

**Passenger, Baggage, Freight, Dumpers, Hand Cars, &c.,**

Of the best quality in all respects, style, workmanship and material, made to order with promptness.

Orders respectfully solicited, with the assurance that no pains will be spared to give entire satisfaction in all cases.

CHARLES WASON,

Late of the firm of T. &amp; E. Wason, Springfield,

toc20

Massachusetts.

**Railroad Car Findings****BRIDGES & BROTHER,**

64 Courtlandt Street, New York.

**Wheels & Axles, Jaws, Bozes, and Casting Fit****Wrought Nuts, Bolts, & Washers,**

Engine and Car Screw Bolts, all sizes; Coach Lag and Telegraph Screws,

**LOCOMOTIVE ENGINE LANTERNS,** From the best Manufacturers, and at their prices. Car, Hand, and Signal Lanterns.

**Cotton Duck for Car Covering,**

Of any required width to 124 inches.

**ENAMELLED HEAD LININGS****Plush and Curled Hair.**

Hand Cars and Baggage Barrows. Passenger, Freight-Car, and Switch Locks, Door Knobs and Butts. Brass and Iron Wood Screws. Brass and Silver Plated Trimmings for Windows and Seats. Varnish, Coach Japan and Glue; Paints, Varnish and Glue Brushes.

Silver Plated and White Metal Letters. Engine and Signal Bells, anti-friction or Babbitt Metal.

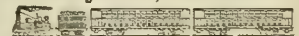
**Portable Forges and Jack Screws.**

Hemp Packing, American, Russian, and Italian. Conductors' Badges and Baggage Checks. Iron, Bronzed and Brass Hat Hooks. Ventilators and White Metal Rings. And all other Articles pertaining to Cars.

ALBERT BRIDGES, Late Davenport & Bridges, Car Manufacturers. Cambridgeport, Mass.

ALFRED BRIDGES, Late Davenport, Bridges & Co., Fitchburg, Mass.

toc6

**CAR MANUFACTORY,****Dayton, Ohio.**

E. THRESHLER & CO., having enlarged their shops are prepared to contract on favorable terms, for building every variety of railroad Cars, in any quantity and on short notice, made of the best materials, and of the most approved workmanship.

They are prepared also to furnish jaws and boxes; the Washburn Wheel, 30 and 33 inch, adapted to inside or outside bearing; cast iron frogs, steel plated; and Switches of the most approved patterns.

They also manufacture blacksmith tyceres, Harris Patent; portable bolt forges; bolt heading and bolt cutting machines; upright drills, wheel presses; wood planers; tenoning and mortising machines, etc.

They respectfully invite the attention of railroad directors and superintendents to their establishment.

Dayton, Jan. 24th. 1853.

Jan. 25+



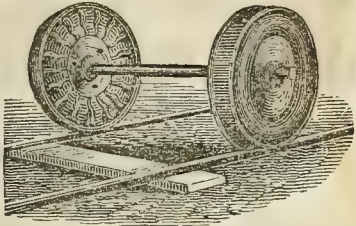
## FULTON CAR WORKS, CINCINNATI, OHIO.

THE Proprietors of this establishment would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to the different points speedy and economical. They are prepared to execute to order on short notice, eight-wheeled Passenger Cars of the most superior description. Four or eight-wheeled Baggage, Cattle, Freight and Gravel Cars. Also, Crank and Lever Hand Cars, Trucks, Wheels, and Axles fitted.



### WASHBURN WHEEL

Having obtained the exclusive right to make this wheel



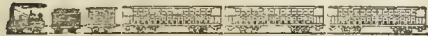
In Cincinnati, Covington and Newport, they are now prepared to furnish Railroad Companies with that Celebrated wheel, with or without Axles. Also, Journal Oil Boxes of any pattern, and Castings for cars fitted to order at the shortest notice.

Address

KECK & HUBBARD,  
Fulton Car Works Cincinnati, Ohio.  
Office 62 East Second Street.

ap.12

## MUSKINGUM WORKS, ZANESVILLE, OHIO.



### DOUGLASS, SMITH & CO.

WOULD respectfully call the attention of Railroad Companies to their establishment at Zanesville. They are prepared to execute orders, on short notice, for

Passenger Cars of the most superior description, Second Class Passenger, Mail Express, and Baggage Cars; Freight, Cattle, four or eight wheeled Gravel Cars. We manufacture a superior

### CAR WHEEL,

Over 2500 of which are now running on the Central Ohio Railroad, and many of these have been in use on the road over two years, having in that time only three to crack, and two to be renewed in consequence of the wearing of the Chills. We have also commenced the manufacture of the celebrated

### WASHBURN WHEEL,

And are prepared to furnish this wheel, with or without axles. Also, castings for Cars fitted to order at the shortest notice.

### BOLLMAN'S PATENT IRON & WOOD BRIDGE.

We are also agents and builders of the above celebrated Bridge. Are now placing upon the piers an iron bridge on this plan over the Muskingum river at Zanesville. We are ready to contract with companies for the construction of this Bridge. All orders addressed

DOUGLASS, SMITH & CO.,  
Muskingum Works, Zanesville, O.

J. DAVENPORT... M. D. WELLMAN... G. M. RUSSELL

### DAVENPORT, RUSSELL & CO.,

## Railway Car Manufacturers, MASSILON, OHIO.

THE subscriber, late of the firm of Davenport, Bridges & Co., Fitchburg, Mass., having associated himself with Messrs. Wetman and Russell, under the above name, would respectfully solicit calls for any kind of Passenger, Baggage, Post Office, Freight, Coal, Gravel or Hand Cars.

Having had fifteen years experience in the business and having secured the best of workmen from the Car Factory in Cambridge, Mass., I feel confident that perfect satisfaction can be given in all work entrusted to our care.

We have now on hand the best of dry White-Oak with which we think we can build Cars as cheap and as well as any other establishment in the States.

Feb. 16\*

JOSEPH DAVENPORT.

### S. C. THOMSON & CO., MANUFACTURERS OF

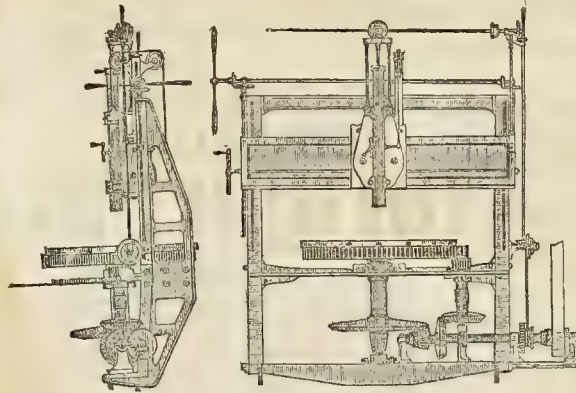
## PATENT PAD LOCKS,

For Railroad Switches, Merchandise Cars Stores, Cemeteries, Iron Safes, &c.,  
Cor. Railroad Avenue and Market st.,  
n.19 NEWARK, N. J.

## NILES' WORKS.

## FOUNDERS AND MACHINISTS,

EAST FRONT STREET, CINCINNATI,



### Manufacturers of TYRE LATHES,

Of the most approved plan.

### HORIZONTAL FACE PLATE LATHES,

OF VARIOUS SIZES, TO SWING

From 40 inches, to 12 feet.

### PLANING MACHINES

LARGE & SMALL.

## MARINE & STATIONARY ENGINES.

BOILERS OF EVERY DESCRIPTION.

## HEAVY FORGINGS,

IRON AND BRASS CASTINGS, &c., &c.

## ALBERT M. SMITH'S PATENT PREMIUM RECLINING & SELF-ADJUSTING CAR SEAT



For a Night and Day High or Low-back Seat, combined in one,

PATENTED AUGUST 21, 1855.

It was awarded two first premiums, a Gold Medal, at the great Fair at the "American Institute," held at N. York, and a Diploma at the State Fair, held at Elmira, N. Y., 1855.

This valuable improvement is adapted and can be applied at a very trifling expense, to the ordinary seat now in use, without impairing its present qualifications as a day seat, and a new seat provided with it, and made in single seats, costs no more than the ordinary seat.

By an arrangement that is very simple, and not liable to get out of order, the back is so hung at points, varying from the centre, that it can be converted into a High-back Night Seat, by pushing against the upper part of the back, which disconnects

the lower part, and allows the sides to be reversed, the outside placed in, which is the natural form and shape of the person, and raised high enough to support the head, this slides the seat forward on a curve, so as to be in conformity with the angle of the back, and it is then self-adjusting to any position of the person, and cannot be moved from it by the sudden motion of the Cars, making a seat as perfectly adapted to its intended use (as a High or Low Back) as if made especially for it, and no other.

The Seat can be seen and examined, and orders will be received for the improvement, to apply to old Seats or for new Seats, at the Office of **ALBERT M. SMITH, Patentee and Manufacturer,** dec20-ly 13 North St. Paul st., Rochester, N. Y., or **TAULMAN & LOW, 157 Broadway, N. Y.**

### ALBERT M. LEA,

CIVIL ENGINEER,

KNOXVILLE, TENN,

toc27

### D. D. MILLER,

Manufacturer of

LOCOMOTIVE, RAILROAD AND HAND

LANTERNS,

190 Water Street New York.

## IRON BOILER FLUES. PASCAL IRON WORKS.

### MORRIS, TASKER & CO.,

Manufacturers of  
LAP-WELDED BOILER FLUES,  
1½ to 7 inches outside diameter, cut to definite lengths,  
as required.

WROUGHT IRON WELDED TUBES,  
From ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, etc., etc.

Warehouse, 85 South Third St.,  
PHILADELPHIA



## Parry's Anti-Friction Box,

PATENTED IN 1853.

THE attention of the public is directed to this invention, for which patents have been granted by the United States, England, France and Belgium—it is designed to relieve all species of pivot or end friction, and is especially adapted to receiving the thrust of propeller shafts, pivots for railway turn tables, steps for turbine wheels, mill stones, center plates for eight wheel cars, steps for heavy mill shafting, and for all kinds of presses where the power is received by the application of a screw, the gain of power by the adoption of this box is immense.

Contracts will be taken for erecting Railway Turn-Tables, (which will cost no more than a wooden structure), and their durability will be guaranteed for twenty years without repairs.

Applications will be received for the sale of State Rights for the use of this invention.

For further information, apply to

JOHN RICE & CO., Patentees,  
90 South Fourth street, Philadelphia.

READ THE FOLLOWING CERTIFICATES.  
OFFICE OF THE PENNSYLVANIA CENTRAL R. R.,  
PHILADELPHIA, June 9th, 1855.

MR. PARRY—

DEAR SIR:—We have your Anti-Friction Pivot in use under Turning Tables, on this Road. They require no gearing or machinery, but simply the strength of one person to turn them when loaded with engine and tender. I should judge they will last for years without repair—an important item in such structures.

Yours respectfully, J. EDGAR THOMPSON,

Civil Engineer and President.

I fully concur in the above and foregoing statement, having examined the Turn-Table and witnessed its operation

WILLIAM B. FOSTER, JR.,

Civil Engineer.

SUPERINTENDENT'S OFFICE,  
TRANSPORTATION DEPARTMENT, PENN. R. R.,  
ALTOONA, Blair Co., Pa., Nov. 11, 1854.

MR. PARRY—

DEAR SIR—The Turn-Table in the new engine house at Altoona is constructed of boiler plate, and is fifty feet in diameter. The center bearing is an application of your Improved Anti-Friction Box, and thus far has given evidence that it is all that its proprietor claims for it—the very best center bearing that can be found or that purpose.

Very respectfully,

H. J. LOMBAERT, Superintendent,  
ENGINEER DEPARTMENT, NORTH PA. R. R.,  
PHILADELPHIA, Feb. 10, 1855.

I am so well satisfied of the excellency of Parry's Anti-Friction box, that I have purchased for the North Pennsylvania Railroad Company the right to use it, and Messrs. Bancroft & Sellers are now building two locomotive engine turn-tables of cast iron for me, one of twenty-five feet, and one of forty-seven and a half feet diameter, to which these boxes are to be applied. I have no doubt whatever that the invention is a very valuable one, and it is simple and not liable to get out of order.

EDWARD MILLER, Chief Engineer.

READING, June 2, 1853.

There are two sets of the above rollers in use on the Philadelphia and Reading Railroad; one under a heavy twenty-five foot iron turning platform, for large locomotive engines, and the other under a six ton crane.

Both have been in operation for some time, and have proved satisfactory; moving with less friction than any other plan of bearing which I have seen, and requiring no repairs and very little grease or oil.

I consider them a most useful invention; as greatly decreasing friction on all heavy bearings for either vertical or horizontal shafting machinery.

Signed, G. A. NICHOLS,  
Engineer and Superintendent Philadelphia and Reading Railroad.

BORDENTOWN, N. J., Nov. 22, 1854.

In July, 1853, I attached Parry's Anti-Friction Box to the shafts of steam propeller Amboy; it receives the back and forward thrust of the wheels, each eleven feet in diameter. I am convinced, by thorough practice, that it is the best thrust bearing that can be used; it does not heat or corrode, requires very little oil, and I think a decided gain in power or usefulness, over any rubbing surface that may be sufficient to resist the pressure of the forward thrust of a propeller shaft.

ROBERT ALLEN,

Superintendent of Steamboats for Camden and Amboy Railroad Company.

PHILADELPHIA, February 19, 1855.

GEO. T. PARRY, Esq.—Dear Sir—I have examined your Anti-Friction Box, for its application more particularly to the purpose of turn table pivots, as well as steps for upright shafts, and difficult as it is to demonstrate as to the perfection of its working, I find its practical applications to be nearer to what has been long desired and sought than anything heretofore offered for such purposes. Great difficulty has ever existed with turntables in obtaining a pivot that would give freedom of motion without constant attention and adjustment, and even with the most approved, expensive gearing has been rendered necessary.

The table, twenty-four feet in diameter, made by Bancroft & Sellers, of this city, being balanced on its center, I found it required my entire weight on the extremity of one of its arms to destroy its equipoise, while with the power of my little finger I could turn it horizontally upon your box. I therefore take pleasure in recommending its use, as the most perfect pivot and step that has ever been presented to the public.

Very respectfully,

STRICKLAND KNEASS, Civil Engineer.

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Messrs LANCE & Co., are making more generally known in England, the great advantages of American securities for investment.

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October 1855. nov.15-6m.

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Every article necessary to

### DRILL THE TUBE-PLATES

and to Set the tubes in the best manner. Tube Cleaners, Steel-Wire and Whalebone Brushes. Tubes for Artesian wells, Pump Shafts, Line Shafting, conveying Steam or Water, &c., &c., screwed together, flush on both sides, or with couplings either outside or inside; also expanded into Flanges. Free Joint Tubes for Core Bars, Railings, &c., Pall Lever Wrenches and Wrought Iron Blacksmiths' Tuyeres.

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THOMAS PROSSER & SON,

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## THE SCHENCK MACHINERY DEPOT AND

### Leather Banding Manufactory,

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### Oak-tanned Leather Belting,

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A. L. ACKERMAN, PROPRIETOR

Aug. 9 ly

## SODA WATER APPARATUS!

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IN THE UNITED STATES,

(Patented June 12, 1855.)

### FOR MANUFACTURING SODA WATER!

Also, every description of Apparatus, either for Drawing or Bottling of Soda Water. Also, the new SELF-TIGHTENING FAUCET, for water or any kind of Liquids, (Patent applied for 1855,) can be made of Brass, Lead, or any other metal, and Silver-Plated. It cannot be left open by carelessness or by children, nor be easily broken. It will out-wear any other Faucet now in use.

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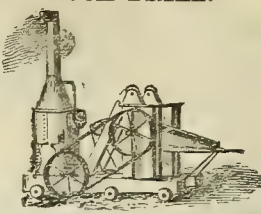
WILLIAM GEE,

Dec. 5, 1855.-ly

68, Fulton Street, New York.

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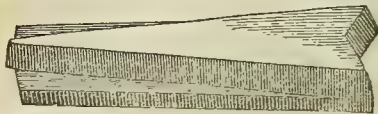
A silver medal, the highest prize, was awarded these Machines at the World's Fair.

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G. ARTHUR GARDNER,  
Trinity Building, N. York.

nov17+

Important to Railroad Companies, etc.



## Leavitt's Railroad Frog-Points, Cast Steel Tools, etc.

THE undersigned, having discovered that cast steel, in a liquid state, can be moulded into any shape or form, are, by means of this valuable discovery, manufacturing

## RAILROAD FROG-POINTS, Lathe Mandrels, Guages

of every description for blacksmiths' use; Steps for Mill Spindles and Shafting, Swage Hammers, and almost all the different variety of tools which are difficult to forge. Articles made in this manner, are much superior to forged productions, as the steel out of which they are manufactured, loses none of the carbonic element, but retains it in all its original purity, while under the repeated heats to which it is subjected by the old and tedious process, it loses much of this valuable property. They are also produced in a much more perfect state, needing little or no fitting or dressing, having all the accuracy of shape which moulded articles possess. They can, also, be furnished at one-half the cost of the others.

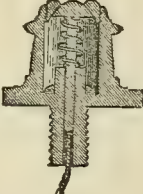
The qualities of the Frog-Points have been already tested by the Ohio and Mississippi Railroad Company, to whom the manufacturers are furnishing them through G. Recker & Co., Cincinnati.

Measures have been taken to secure a patent for this valuable invention. LEE & LEAVITT,

15 Walnut st., Cin'ti.

N. B.—They would also call the attention of the public to their valuable and extensive assortment of cast steel saws, and circular saw mills, etc.

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# Railroad Record.

E. D. MANSFIELD, - - - Editor.  
W. WRIGHTSON, { Associate Editors.  
T. WRIGHTSON, {  
DAVID CHRISTY, Geological Cor'dent.

CINCINNATI:

THURSDAY MORNING,.....FEBRUARY 21, 1856.

OUR EUROPEAN AGENTS FOR THE RAILROAD RECORD ARE  
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# Railroad Record

PUBLISHED EVERY THURSDAY MORNING.

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## MONEY, CURRENCY AND FINANCE OF THE UNITED STATES.

Should peace, as is anticipated, be made in Europe—a new era will open in the commerce and enterprise of the United States—not on account of any direct change, in the commercial transactions of Europe and America; but, in the relief given to the source of credit, by the removal of the war drain. In that event the current of investments, in American Securities, will resume its course, and all *good railroad securities*, will find a ready market. Peace, however, is not *certainly* re-established; and, in the meantime, it will be well to consider the present condition of the Money, Currency and Commerce of the United States. In the *Record*, for March 3d, 1853, we gave a summary of the *Coin Currency and Active Money* of the United States, for January of that year. We shall now resume the statement, and complete it to January 1856.

Commencing in 1836 on a basis of the Treasury statement then made we have the following results, viz:

|                                                                   |               |
|-------------------------------------------------------------------|---------------|
| Coin in the United States (1836).....                             | \$73,000,000  |
| American Gold received to 1853.....                               | \$149,482,435 |
| Aggregate.....                                                    | \$222,482,435 |
| Deduct excess of Imports.....                                     | 18,500,900    |
| Total Coin January 1853.....                                      | \$203,982,435 |
| California Gold received in the United States since.....          | \$151,000,000 |
| Aggregate.....                                                    | \$354,982,435 |
| Excess of Exports of Specie and Bullion in 1853, '54 and '55..... | \$ 91,800,000 |
| Coin and Bullion in the United States, January 1856.....          | \$263,182,435 |

As the Tables of U. S. Commerce do not

correspond with the end of the year, it is possible there may be a variation of two or three millions in the above aggregate; but not more, we should think.

It follows, from this statement, that there is now in the United States, an amount of coin and Bullion, not materially different from *two hundred and sixty millions of dollars*.

In January, 1853, there was as we see above *two hundred and three millions*; so that we have *gained*, in the three years past, near *sixty millions in specie*.

Let us now examine the money of *active circulation*.

In January 1853, the statement was as follows:

|                                                        |               |
|--------------------------------------------------------|---------------|
| Coin and Bullion, (above).....                         | \$203,982,435 |
| Bank Notes in circulation.....                         | \$153,958,358 |
| Aggregate of Coin and Notes.....                       | \$357,940,793 |
| Deduct Coin in Bank vaults and U. S. Sub-Treasury..... | \$ 63,483,536 |
| Money in Circulation.....                              | \$294,457,257 |

A portion of the Bank notes were of course held by the Banks, but, as they were continually deposited and drawn out, they make a part of the money of circulation.

In January, 1856, the circulating notes of banks amounted to \$177,157,412, according to a statement in *Bicknell's Reporter*, and the coin in the United States Sub-Treasury to \$21,000,000, and that in the Banks to \$60,072,830.

The amount of money now, either in circulation, or, in the hands of the people, is as follows:

|                                                            |               |
|------------------------------------------------------------|---------------|
| Coin and Bullion, as above stated.....                     | \$263,182,435 |
| Bank Notes.....                                            | \$177,157,412 |
| Aggregate.....                                             | \$440,339,847 |
| Deduct coin held by Banks and Sub-Treasury, Jan. 1856..... | \$ 81,072,830 |
| Money in circulation.....                                  | \$359,267,017 |
| Money in circulation Jan. 1853.....                        | \$294,457,257 |
| Increase.....                                              | \$ 64,809,760 |

Then we have the incontrovertible fact, that, in three years, the *money of commerce* in the United States, has increased full *sixty millions*.

This may seem incredible to some, who reflect that in the last three years money has been in much greater demand and railroad enterprises have been in a good measure arrested. But it is easy to see, why this increase of money is perfectly consistent with the state of things we have seen.

First, we may observe that nearly all branches of business have been in an extremely prosperous condition. This is especially the case with farming and banking.—The price of produce has been very high, and the dividends paid on most Bank Stock enormous. The same remark may be made of the importing and navigating interests.

Secondly, Railroads have been arrested from two causes; one, because they are largely built on European *credit*, and the other, because the capital engaged in them had, for the time being, become *disproportionate*.

Thirdly, The *high rates* of interest paid for money is not so much a consequence of the demand for money, as it is of the *encouragement given to usury*, by the relaxation of the laws against it in most of the States. The effect of allowing 10 per cent., instead of 6, as the contract rates of interest in Ohio, has been to make the *current rate* 10 per cent., and if the law were to allow 12 per cent., the same result would follow. Heretofore, the law has in most countries operated as a sort of dyke against enormous usury. The present doctrine is, that money should be as free as the sale of potatoes! The effect of this sagacious doctrine is, that the rate of interest in the United States has been continually increasing, just in proportion as the law against usury has been relaxed.

Thus, we see there are sufficient reasons for the state of things in the last two years, without resorting to the increase or diminution of money at all. Another thing we should observe in reference to the use of money. The increase of interest is almost the same as diminishing the capital. By making it cost more; less of it, in the form of money, can be profitably used.

Let us now see the amount of *active circulation* per individual. In the *Record* of March, 1853, we furnished the active circulation of the United States, with the authority for it for the past forty years. We repeat it here with the addition of 1856:

| Years. | Population. | Money in Circulation. | Per Head. | Authority.   |
|--------|-------------|-----------------------|-----------|--------------|
| 1811   | 7,500,000   | \$ 43,000,000         | \$ 6 00   | Gallatin.    |
| 1816   | 8,600,000   | 95,000,000            | 11 00     | Crawford.    |
| 1830   | 12,866,930  | 70,000,000            | 5 50      | Gallatin.    |
| 1836   | 15,366,900  | 148,000,000           | 11 00     | Treasury.    |
| 1853   | 25,000,000  | 295,457,257           | 12 00     | R. R. Record |
| 1856   | 27,000,000  | 359,267,017           | 13 30     | R. R. Record |

In 1816, 1836 and 1853 were extraordinary inflations of trade. The result is seen in the rapid increase of currency.

In order to show the proportion of *coin* to *paper* held at different periods, (in circulation,) we present the following table, premising that from the *gross* amount of coin and bullion, is deducted the amount of coin held by the banks and sub-treasury, thus showing the amount of each, in circulation:

| Years. | Bank Notes.   | Coin.        | Population. |
|--------|---------------|--------------|-------------|
| 1816   | \$ 87,500,000 | \$ 7,500,000 | 11½ to 1    |
| 1830   | 60,000,000    | 10,000,000   | 6 to 1      |
| 1836   | 120,000,000   | 28,000,000   | 4½ to 1     |
| 1853   | 153,958,358   | 141,498,899  | 1 1-10 to 1 |
| 1856   | 177,157,412   | 182,109,605  | 39-40 to 1  |

We see here in these figures a great and surprising financial revolution, which will explain the commercial activity of the United States, and the speculative turn which business takes, quite as well as the new lands and industry of the people explain the increase of positive capital. To the figures:

|                                                 |                                |
|-------------------------------------------------|--------------------------------|
| Currency in 1836.....                           | \$168,000,000                  |
| Currency in 1856.....                           | 359,000,000                    |
| Increase.....                                   | \$191,000,000 or 112 per cent. |
| Coin to Paper in 1836.....                      | 1 to 4                         |
| Coin to Paper in 1856.....                      | 1 to 39-40                     |
| Increase of Coin over Paper, over 300 per cent. |                                |



We have reached now the extraordinary position of a people with *thirteen hundred banks* of circulation, having *more coin than paper in circulation*, or rather *in the hands of the people*.

From the Railroad Record Supplement.

### THE THREE GREAT ROUTES TO THE PACIFIC.

There may be at some period (we pretend not to say when) *THREE* great Railroad Routes to the Pacific. Many persons cannot imagine how *one* is to be built, and therefore will be inclined to ridicule the idea of *three*. But we say, there may be three, and that, too, at no remote period. The reasons are very obvious, when we consider that the people of this country have always accomplished whatever was *necessary to be accomplished*. Now, both commerce and geographical relations require *three outlets* on the Pacific from the Mississippi Valley. These three outlets are, Puget's Sound, San Francisco and San Diego. Now, if we are to make *but one route*, the case is a clear one—the Texas route *must* be preferred. It can be made for *half the money, and in half the time, and run with half the cost*. These facts are decisive with regard to one route. But we will here consider this subject in that broad light which looks to all the great interests and all the great parts of the Republic, with a view to show how this can be done, and what are the true relations of the great routes:

1. *The possibility of constructing three Railroads to the Pacific.*—To do this will, require 6,000 miles of Railroad. This is just equal to what the people of the United States have done in *two years*. It is self-evident, then, that both labor and money are sufficiently abundant to accomplish this. But in order to make it easy, let us suppose the work is accomplished in *six years*—then there will be but 1,000 miles for each year, and 335 miles on each route. The work, therefore, is entirely *possible*. The cost at \$40,000 per mile will be *two hundred and forty millions*; one-half of which the government may grant in lands, and the other half will be raised by companies. This is entirely a feasible plan, and may be accomplished in a short period. We do not say that it is desirable that all these routes should be adopted and commenced *at once*, but we are now showing what is possible, and what may at some time come to pass. Let us now look at the geographical relations which require this:

2. *The three Ports.*—From all the information we have yet received, it would seem there are but three really good ports on the Pacific, within the American boundaries. The northern one is somewhere on Puget's Sound, the second at San Francisco, and the third at San Diego. The latitude and distances of these places are as follows:

|                                 |                 |
|---------------------------------|-----------------|
| Seattle (on Puget's Sound)..... | 47 deg.         |
| San Francisco.....              | 37 deg. 30 min. |
| San Diego.....                  | 32 deg. 40 min. |

From the Straits of Fuca to San Francisco...800 miles.  
From San Francisco to San Diego.....300 "

Thus we see that these places are far enough from each other to demand a separate trade. Supposing one route to leave Milwaukee, Wis.; the second St. Louis, and the third Fulton, Ark.—these routes will have a belt of 500 miles broad between each two. As the whole length is 2,000 miles, there is room on the routes of these three railroads for *twenty States of double the ordinary size*; then allowing that only half the lands are arable, there will be good land enough to make these States equal to the old ones. And why should there not be twenty States instead of four or five? There is no reason, except that *without railroads these States cannot be made productive*. To increase national wealth therefore, and secure increased means of subsistence to the increasing millions of this country, no plan of improvement could be equal to this very one of constructing railroads from the Mississippi Valley to the great ports of the Pacific.

3. *Comparative Merits of Routes.*—On this head we shall take only such data as are furnished by the U. S. Surveys, and such as has been added to them by recent information. The following are the data:

| Route.                                                 | Distance by Proposed route. | Summit of the Highest Pass. | Tunnels Tunnel.            | Climate. Lowest degree. |
|--------------------------------------------------------|-----------------------------|-----------------------------|----------------------------|-------------------------|
| Route near the 48th parallel.                          | 2,025 miles.                | 6,044 feet                  | at elevation of 5219 feet. | 30° below zero.         |
| Route near the 41° from Coun. Bluffs to Benicia.....   | 2,032 miles.                | 8,373                       | None.                      | 20° below zero.         |
| Route near the 32d parallel, from Fulton to San Diego. | 1,621 miles.                | 5,717                       | None.                      | 10° above zero.         |

This table is conclusive upon certain highly important facts.

1. Taken as a proposition to go from the navigable waters of the Mississippi river to the Pacific Ocean, the route through Texas is 404 miles nearer than the Northern route, and 411 miles nearer than the Middle route. But if it were a proposition to go to the *navigable waters of the Pacific*, then it is but 1,360 miles from Fulton to Fort Yuma, at the mouth of the Gila, whence steamboats run at all seasons.

2. Supposing that each route cost the same *per mile*, then the Texas route, being 400 miles nearer, will cost just *sixteen millions of dollars* less than either of the others.

3. The *winter climate* of the 32d parallel is 40 degrees milder than that of the Northern route, and 30 degrees milder than that of the Middle route. If but one route is to be made to the Pacific, then the question is, entirely settled in favor of the Texas route, but we undertook to show that *three railroads* to the Pacific are entirely possible and practicable. If they were made, the following will be a near approximation to the cost:

|                                                                    |              |
|--------------------------------------------------------------------|--------------|
| Route of the 48th parallel, 2,025 miles, at \$40,000 per mile..... | \$81,000,000 |
| Route of the 41st parallel, 2,032 miles, at \$40,000 per mile..... | 81,280,000   |
| Route of the 32d parallel, 1,621 miles, at \$40,000 per mile.....  | 64,840,000   |

The Government Engineers make the cost of the Northern routes much greater, and we have no doubt that, owing to the far less favorable climate for construction, the cost per mile will be greater; still we believe it fair to assume \$40,000 per mile as sufficient.

The aggregate cost of these roads will then be equal to \$227,120,000. Half of this is \$113,560,000, which we suppose the Government will be willing to furnish. At \$1 per acre, this is equal to 113,560,000 acres, or 177,400 sections, or about 30 sections per mile. This is about *one-eighth* of the lands owned by the United States in the unsettled regions, and if, by this grant, the Railroads to the Pacific were actually made, there can be no possible doubt that the Government lands would advance in value far beyond the outlay.

The interest on the bonds, and the time necessary to secure business in an unsettled country, may require a larger amount of lands, but if even one-fourth the Government lands were required, there is no doubt that, as a simple government measure, for revenue, the Treasury would be the gainer.

If such a grant were made, the question would still remain open, whether any company would avail themselves of such a proposition, and if they did, whether one or all the routes would be taken, and all the roads constructed. This would be very doubtful, but this plan would throw them open to a fair competition, and the respective routes would have to be decided on by the best judges in the world—*those who are to invest capital in them*.

In this brief review, we have only aimed to set out the three routes distinctly, and to show, if they are made, in what manner they can be accomplished, unless the Government steps in, and undertakes the magnificent enterprise as a Government work.

### R. R. LEGISLATION--FENCING.

Railroads are decidedly a modern institution, belonging more especially to the last ten years. They have grown in the short period of their existence into a mighty interest which has a close connection with every varied employment or relation of life. There is not a business but is in some degree greater or less dependent on them. The farmer, the mechanic and the merchant alike depend on them to render their wares of value, or to supply them the means of conducting their business. Socially, railroads are pre-eminently a *domestic* institution. If they are not social ties and family bonds, they at least are the great means of preventing these bonds from being wholly ruptured, and families



from becoming strangers to each other. In short, railroads are now as indispensable to the world, to its business and its pleasures, as food to the hungry or medicine to the sick. It is then strange that legislation, when applied to these great means of commerce and social intercourse, should savor of the oppression of past generations, and resemble rather the enactments necessary to restrain a monster monopoly than the salutary measures which encourage a public blessing. We do not ask of legislators that they should abate one iota in the system of legislation necessary to secure the right direction and the honest employment of the capital invested in these enterprises. On the contrary, we would be glad to see these legislative safeguards doubled, and defalcation and dishonesty rendered, as far as may be, an utter impossibility. But we do ask that legislators should feel it a duty to enact as wise and liberal measures towards the railroad interest as to other interests. And that where these interests clash, the railroad should at least have a fair chance.

By the report of the Auditor of State, we learn that the taxable property of Ohio in 1855 amounted to \$860,877,354. In 1850, by the same authority, it was given at \$439,000,000. Is it to natural increase alone that this immense gain in valuation is to be attributed? Would natural increase alone in five years double the value of our property? Is the immigration to our borders sufficient to account for this? Would either of these causes, or both combined, raise the cash value of farm property from ten to twenty and thirty dollars per acre? Or is this increase to be attributed to the increasing means for rapid and easy communication, to the opening of new channels for the flow of commerce, and new markets for the products of the farm? And when the interests of these means of communication, in many instances built without one cent of cost to the parties mostly benefitted, clash with those of the agriculturists on their lines, with those whose property and yearly products are receiving his immense gain from their agency, should legislators always treat them as though they were a public curse and detriment, or should they sometimes remember the benefits they have conferred, and place them upon an equal footing with the other interests, which it is their duty to protect. The farmer owns a piece of land valued at ten dollars per acre. His wheat is worth from 60 to 80 cents per bushel—his other crops in proportion. Some crops he cannot cultivate, because when cultivated they will not bear wagon transportation to market. A company of strangers build a railroad past his property. They pay him liberally for the land they take, and the moment the locomotive first passes his farm, he can sell it for twenty or thirty dollars per

acre, and his wheat for \$1 25 to \$1 35 per bushel. His other crops in like ratio, and the crops he could not cultivate with profit before, he can now raise and send fresh to market. And yet this man, so largely benefitted at the expense of others, and shielded by antiquated legislation, will not spend a single dollar to make or repair a fence to confine his own cattle, and prevent their endangering the lives of hundreds of travelers; and what is far worse, will even too often afford facilities for his worthless animals to be destroyed themselves and destroy human lives. These are not idle fancies—they are notorious truths and as such we claim for them the attention of our legislators. That same farmer, had he sold a portion of his possessions to another agriculturist, to compete with him in supplying the market, would willingly have built and maintained half the fences on the dividing line, and the whole fence on the lane which leads to his neighbor's house. He considers it just to encourage a competing agriculturist, and bear equally with him the burden; but he will not move one step to countenance a means of conveyance that annually doubles his income.

Such is the narrow policy of the agriculturist, and such, we are sorry to say, has been the policy of our legislators. But we hope that with increasing light, with the conviction, every year more apparent, that railroads, so far from injuring the farmer, are his greatest friends, a brighter day will dawn on legislation, sounder and more liberal views be adopted, and railroad interests placed as of right they should be, on an equal footing with the other great interests of the State.

#### TURKEY—ITS DEVELOPMENT by RAILROADS

One of the greatest benefits to result to Turkey from its alliance with the Western Powers, and one which will far outshadow in importance their armed interference in her behalf, is the development of her territory by railroads. While nearly all Europe besides has been advancing with giant strides in civilization, Turkey—decayed and benighted Turkey—has been worse than standing still; she has retrograded rather than advanced in the social scale, and this, one of the finest regions of the globe, through misrule and false religion has lost even the remnants of the ancient civilization that once lingered there.—The following, which was translated from the French for the Philadelphia *Inquirer*, gives reason to hope that a brighter day is yet in store for that beautiful, but unfortunate country:

The most active element of civilization for Turkey, will unquestionably be the establishment of a net work of railroads, which shall connect the principal political and commercial centres of the empire, and substitute the movement and activity which are the chief characteristic of our epoch, for the immo-

bility that has for centuries weighed upon these beautiful regions.

The Ottoman government has at last understood it, and without dreading the opposition of fanaticism, and the passive resistance of routine, the Sultan has announced the intention of borrowing from the Occident those rapid means of communication and locomotion, which, under the name of railroads and the electric telegraph, have created, multiplied and rendered accessible to all the wonders of civilization. The government of the Sultan has done still more. It has addressed an appeal to the capital and the ideas of the Occident, and offered them a serious support and a generous welcome.

This appeal has been heard. Ottoman credit begins to be established in the principal commercial marts of Europe. On the other hand, learned engineers, experienced contractors, all versed in the direction of public works, have offered their co-operation to the Sultan, who has accepted it. The work has already begun; it is advancing at certain points, while the elaboration of the plans in their ensemble, are being completed.

The following indications with regard to these plans, which are not entirely perfected, is derived from an authentic source.

The principal line of railroad will undoubtedly be that which, starting from Constantinople, will be directed to Belgrade by way of Adrianople, Philippoli and Sophia. By means of it the capital of the Ottoman empire will be placed in immediate and daily contact with the other capitals of the great European States, beginning with Vienna and ending with London.

Constantinople is without doubt the central point of the Ottoman empire. Yet the Turkish administration, far less centralized than those of the other European powers, has allowed important centres of business to be established in other parts of the empire, whose interests also demand the establishment of railroads. We will mention only two, one in Europe, Salonica; the other in Asia, Smyrna. A railroad which starting from Salonica should traverse Albania to terminate at a point of the Gulf of Otranto, which might be for Avlone, for instance, would protect this part of the Sultan's States against Greek brigandage and attempts at insurrection more effectually than an expensive army. It would connect the commerce of Roumelia with that of the Adriatic, which, under the impulse of the Austrian Lloyds, is assuming more and more importance. As, on the other hand, a branch of the railroad from Constantinople to Belgrade would be directed to Salonica, the result would be that the distance from Trieste to Constantinople would be reduced by several days, and commerce between these two ports freed from the trammels, dangers and tediousness of the navigation of the Archipelago. What would be true of Trieste, would be still more true of the ports of Italy.

In Asiatic Turkey, it is Smyrna which, at first, strikes our eyes. This city is the geographical centre of the arc which embraces the Bosphorus, the Hellespont, Athens, Cape Matopan, Crete, and Rhodes. It is to this situation that Smyrna has owed the antiquity of its importance, increased still more in our day by the excellence of its port. Besides, Smyrna is the maritime outlet to all the Asiatic commerce which is carried on by land. It is to the West of Asia, what Canton is to the East. Smyrna owes to its maritime and continental relations a population of 200,000 in-



habitants. It is certain that if a network of railroads is, at a period more or less near, to be established in Asiatic Turkey, it will converge towards Smyrna. Even now, a line from Smyrna to Broussa, bringing the commercial metropolis of Asiatic Turkey nearer to Constantinople, would be an enterprise eminently useful. As to other lines which would radiate from Smyrna towards the South and East, we must wait, before speaking of them, until the first lines indicated above are established and have proved, by their free and fruitful working, that the population of these countries can appropriate to themselves Western ideas and practices. It is an experiment to be tried and our most lively desire is that it may succeed, for the interminable Eastern question can be definitely solved only on this condition.

## Railroads.

### FRENCH BROAD, AND THE SEVIER R. R.—AND ITS CONNECTION WITH THE GREAT PACIFIC R. R.

SPEECH OF MR. ARMSTRONG.

Mr. Armstrong, of Knox county, Tennessee, having introduced into the Legislature of that State a bill to charter, and extend the aid of the State to the Knoxville and French Broad Railroad Co.; whose object it is to connect Knoxville with the Cincinnati and Charleston Railroad, thus spoke of Knoxville and the region of East Tennessee, which we extract for the information it contains, and the eloquent manner in which he has spoken of the Great Pacific Road:

Much has been said upon this floor, Mr. A. said, about the "Pacific Railroad." He was aware that the bare mention of that enterprise might provoke a smile from certain gentlemen, but the fact must be confessed that the Pacific Railroad project was the great work of the day, which, when finished, would distinguish the present century. Early in the session he had had the honor of introducing a resolution declaring the sense of the present General Assembly as to the route that road shall take, and instructing our Senators and requesting our Representatives in Congress to contribute their aid, by inducing proper action on the part of Congress, to promote the building of the same by a route that might pass directly through our State. This resolution, he was happy to know, had passed both branches of the Legislature, perhaps without a dissenting voice. The Pacific Railway, he begged leave to say, was not chimerical—it was no "humbug." While he left Mr. Benton, Mr. Fremont, and others to direct their mighty energies to the task of proving the more northern route, by way of Independence, &c., the most practicable, he preferred, himself, to believe that the efforts of Robert J. Walker and the efficient officers of the Texas Western Railroad Company were directed in the right quarter. It had once been his fortune to pass over a portion of the route near to that surveyed by said Company, and he had ocular demonstration of the entire feasibility of building a road over a part of the southern route, if he had needed any other than the testimony of Col. A. B. Gray, U. S. Boundary Commissioner, and Engineer-in-Chief of the Texas Western and El Paso Railroad Company. He invited the attention

of members to the route lately surveyed by that distinguished Engineer:—Making Memphis, on the Mississippi, the initial point, and going westward, the route would pass through Little Rock, Ark., and Fulton or Preston to Fort Chadbourne in Texas; thence, along the 32d degree of latitude, to San Diego, on the Pacific, running through El Paso on the Rio Grande, the Mesilla Valley; The Gadsden Treaty Purchase, the Pienos Villages on the Rio Gila, down that stream to its mouth, crossing the Colorado, and thence across the lower part of California to San Diego, whose harbor, for safety and accessibility, was so justly celebrated. Of the country thus traversed—its susceptibility of cultivation,—its climate, free from the enervating influences of tropical heat or the congealing effects of more northern latitudes; of the road, its easy grade—and of the general adaption of the region to the construction of a Railroad, he also referred members to the able and interesting Report of Colonel Gray. He regretted, exceedingly, the time to which he had limited himself did not allow of his speaking more fully of the location of that Great Highway and its effects; unquestionably the greatest undertaking of the age for our country, if not for the whole civilized world. It was a subject upon which he should delight to dwell, he said, but he forebore. That the road would be built it had long since ceased to be doubted, he believed; its immense importance in a commercial, social and national point of view, were alone spoken of at the present time.

Presuming gentlemen to be familiar with the geography of the country, Mr. A. went on to say, he would ask them to start with him, again, at Memphis, and trace out eastwardly the further probable route of this National thoroughfare. Leaving that flourishing city, then, the route would pass along the Memphis and Charleston Railroad to the city of Chattanooga; thence along the Chattanooga and Cleveland Road and the East Tennessee and Georgia Road to the city of Knoxville. He paused here, to say that the time was when the inquiry might have been made, where was Knoxville? He was rejoiced to say that that time had passed forever. Situated almost in the very center of the glorious confederacy, under a horizon the clearest, and in an atmosphere the purest on the continent, she sat high up on her native hills, and bade defiance to the dangerous diseases of other climes. In the midst of a country, rich in all the minerals used in the arts, and in the productions of the soil, she bid fair to be the Birmingham of the United States. Reaching out her arms of iron to Louisville, Cincinnati, Chicago and the far north-west—to Charleston, Savannah and the "sunny South"—to Washington, Philadelphia, New York, and the populous north-east—beside her connections with the "Great West" by the same means; with the noble rivers of the Holston, Clinch, French Broad and Tennessee tributary to her, she was even now, although in the very spring of her existence, one of the points marked on the map of the United States as destined to be of the first importance. The great emporium of East Tennessee—that modern Goshen flowing with all the luxuries of life—she was rapidly quadrupling her population, and he believed she would soon rival any city in the State.

It was, then, from this city, which he felt a just pride in calling his birth place, that it was proposed by the bill under consideration to

extend further towards the Atlantic the route of the Great Pacific Road. Air lines, or as near to them as possible, was the admitted policy of Railroad builders. The route indicated in the bill to charter the Knoxville and French Broad Railroad Company, would be almost an air line continuation of the Pacific Road. Its direction from Knoxville would be nearly due east, through a section of country as fertile as the Delta of the Nile, and over a grade the most easy and natural. In its construction not a single tunnel, he was advised, would have to be made—no difficult excavations would have to be encountered or heavy embankments to be filled. The French Broad River, more beautiful in its scenery than the Rhine or the Hudson, as Nature's pioneer engineer, with an unerring hand, had marked a way through the mountains between Tennessee and North Carolina for its connection with the roads of the East. Passing on from Knoxville through Sevier county, *via* (or near) Sevierville—a village, he begged to be indulged in remarking, than which he knew of none more lovely in the State, quietly reposing as it was in the lap of agricultural plenty, and romantically situated near the foot of the the loftiest and most fertile range of mountains in all the South—the road would intersect the Cincinnati and Charleston Road as before stated. He was gratified to know, and to be able to state, that the present Legislature had granted the aid desired by the President and friends of that Road to secure its speedy completion. Thence to Paint Rock, Mr. A. proceeded to show, the route would be continued, where a connection would be formed with the North Carolina Roads. That honored old mother of our noble State, he had been informed, had, at a recent Legislature appropriated her aid to the extent of five millions of dollars to assist her enterprising citizens in constructing the various internal improvements within her borders. Paint Rock, on the Tennessee line, was the point he understood as designated by her engineers, in a reconnaissance ordered for the purpose, where the North Carolina Central Railroad Company invited us to meet them in their march to the West. Mr. A. thought he did not underestimate the spirit of his fellow-citizens of the State when he predicted that the invitation would be cordially accepted; and he rejoiced at the prospect of the emulation he expected to see animating the two States—the liberal parent and the worthy offspring—to reach the connecting point first.

Pursuing still the route of the Pacific Road, (or Mr. A. would call it, the Atlantic and Pacific Road) he continued: Passing over the Central and a portion of the Raleigh and Gaston Road to the seaboard and Roanoke Road—the San Diego passenger, and the millions of the ever traveling human family—bearing in their trains, too, all of the numberless articles in the Cornucopia of Commerce—would reach the Atlantic at Norfolk, Va., or, diverging to the South, at Beaufort, N. C. The roar of the Pacific would scarcely have ceased in the ear of the passenger, before he would be greeted by the surf of the Atlantic, as by an echo. The tide will scarcely ebb and flow ere he has gone from one point to the other. In the same day, as it were, his cheek may be fanned by the breezes of the two oceans. This was no dream, Mr. A. said. It would be realized. Nothing else would satisfy the demands of the times. He believed he had no more enthusiasm than fell to the lot of



most men, but he felt almost like hailing the Union of the Atlantic and the Pacific as an absolute certainty—their bans had been proclaimed—and he believed that we would all soon have the pleasure of congratulating the country upon a consummation so devoutly wished for. Future generations could then celebrate the union of the two oceans as the Venitians used to celebrate the marriage of their Queen City to the Adriatic.

Mr. A. proceeding, said, he had noticed some time since, perhaps in the columns of that "model newspaper," the National Intelligencer, a letter from Lieut. Maury, (he believed) acknowledged in both hemispheres to be one of the first men of the day, in which, if he was not mistaken, Norfolk, Va., was designated as the point on the Atlantic coast most eligibly situated, &c., for the great seaport city of that coast. Had Norfolk, like New York, stretched her arms to the West at the time the latter did, it had been conjectured she would have outstripped any rival. Her harbor, he had heard, was as good, if not the best, on the coast, and the navies of the world might ride there in safety. But it was foreign to his intention, Mr. A. said, to speak of Norfolk otherwise than as one of the probable termini of the Pacific Railway. That Road once constructed to Norfolk, or to Beaufort, or to any other point, even with the start of a half a century, he would warn New York to "look to her laurels." Although the increase of the latter place in population and general importance had been almost unprecedented, yet he predicted for the Coast-City that could secure the Pacific Road, a growth far more astonishing. And, in view of the increasing agitation of the great question of Slavery, which it was to be feared would unfortunately terminate in a real issue sooner or later, was it not of the very first importance, Mr. A. appealed to Southern men, to the South, to secure this Road and its termini? There would not, in all probability, be two Pacific Roads for a long period, and once located in the territory of the Southern States and under their control, it would prove not only a chain of indissoluble strength to the South, but would also make the North pay tribute to her. Did it not then, Mr. A. asked, become us as true Southern men to secure, if possible, by the construction of all proper air line roads, as well as by every other means of inducement, the location of this Road on our Southern soil?

But should the Pacific Road never be built, Mr. A. said, the Road he asked to have chartered and aided would form a very important link in the chain, or net-work, of roads now being built all over the country. By turning to the South-east after passing Paint Rock, the line of travel over the Spartanburg and Union Railroad, via Columbia, S. C., would be thence direct to Charleston—Cincinnati, Louisville and Knoxville might thus reach that Queen City by a route direct. It would thus appear, Mr. A. hoped, to the satisfaction of those who objected to extending State aid to any Road unless it formed important connections, that the Knoxville, Sevierville and Paint Rock would connect with some of the longest and best paying Roads on the continent. He, therefore, trusted they would recognize this Road as worthy to be a recipient of the benefits of the General Improvement Acts of 1851-2, and 1853-4. By liberal legislation upon this subject, Tennessee had everything to gain. Valuable as were the lands of the counties of Sevier and Cooke, they would be rendered ten times more so, if

made accessible by means of the Road under consideration; which he believed could only be done at the present time, by uniting to individual effort the policy to which he had more than once alluded.

## CINCINNATI STOCK SALES,

AT THE STOCK BOARD,  
MERCHANTS' EXCHANGE,  
AND AT PRIVATE SALE.

BY HEWSON & HOLMES.

For the week ending February 20, 1856.

### BONDS.

|         |                                                                                                 |             |
|---------|-------------------------------------------------------------------------------------------------|-------------|
| \$2,000 | Cincinnati, Hamilton & Dayton R. Co. 7 per cent. 2nd Mortgage Bonds.....                        | 86 and int. |
| 4,000   | Covington & Lex. R. R. Co. 7 per cent. 2nd Mortgage Bonds.....                                  | 65 "        |
| 1,000   | Little Miami R. R. Co. 6 per cent. Bonds, due in 1880.....                                      | 80 "        |
| 5,000   | Cin. & Chicago R. R. Co. 8 per cent. Real Estate Bonds, George Milne, Trustee, due in 1859..... | 70 "        |
| 2,000   | City of Wheeling 6's, 1873.....                                                                 | 65 "        |
| 1,300   | Indianapolis & Cin. R. R. Co. 7 per cent. Dividend Bonds.....                                   | 68 "        |
| 500     | Ind. Central R. R. Co. 10 per cent. Income Bonds.....                                           | 90 "        |
| 3,000   | Cov. & Lex. R. R. Co. 10 per cent. Income Bonds.....                                            | 62½ "       |
| 845     | Little Miami R. R. Co. Dividend Scrip, December issue.....                                      | 80 "        |
| 220     | Little Miami R. R. Co. Dividend Scrip, June issue.....                                          | 90 "        |
| 2,000   | Cincinnati, Wilmington & Zanesville R. R. Co. 7 per cent. Income Bonds.....                     | 45 "        |

### STOCKS

|     |                                      |       |
|-----|--------------------------------------|-------|
| 122 | Shares Cin. & Chicago.....           | 8½ "  |
| 67  | " Do. do.....                        | 7¾ "  |
| 100 | " Do. do.....                        | 7½ "  |
| 50  | " Do. do.....                        | 7 "   |
| 20  | " Covington & Lex.....               | 18 "  |
| 178 | " Little Miami R. R.....             | 90 "  |
| 25  | " Cin. & Hamilton & Dayton.....      | 62½ " |
| 100 | " Dayton & Western.....              | 20 "  |
| 61  | " Eaton & Hamilton.....              | 25 "  |
| 20  | " Columbus & Xenia.....              | 84 "  |
| 145 | " Ohio & Miss. R. R.....             | 9 "   |
| 190 | " do do.....                         | 8½ "  |
| 200 | " do do.....                         | 8 "   |
| 150 | " do do.....                         | 6½ "  |
| 300 | " do do.....                         | 6 "   |
| 48  | " Indianapolis & Cin. R. R.....      | 56 "  |
| 12  | " Covington & Lexington.....         | 18½ " |
| 85  | " Cincinnati Insurance Co.....       | 63 "  |
| 7   | " Ohio Life Ins. & Trust Co. bk..... | 93½ " |

## SOUTHERN PACIFIC,

OR,

## Texas Western Railroad Co. Agency.

THE undersigned, Agent for the Texas Western Railroad Company, will furnish for a short time only, the full paid 5 per cent. stock of said Company on the usual terms of two dollars on each share of \$100, and balance as instalments mature, in 6 semi-annual payments, 50 cents on each share. The project is fully under way and has been sufficiently advertised for every one to understand. To parties wishing to subscribe, I can furnish them full explanations.

EDGAR CONKLING.

Feb. 14. 106 West Fourth Street Cin.

## For Sale, at Louisville, Ky.

TWO first Class Passenger cars. (Trucks not yet complete, can be made for any gauge.) Sixty-nine Car Axles, 4 inches diameter situated for 4 ft. 8½ inch gauge. Twelve pairs Car Wheels and Axles fitted up for 4 feet 8½ inch gauge. 1,400 lbs. Rubber Car Springs.

THOS. EPSALL, Louisville, Ky.  
N. S. WHITON, Jersey City, N. J.

Feb. 21-1m

## PAGE'S

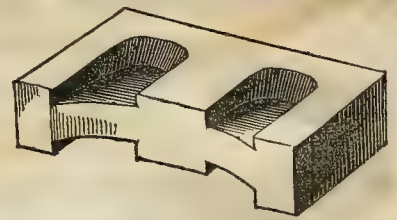
## PATENT PORTABLE CIRCULAR SAW MILLS.

THE subscribers are manufacturing, under patent, the above Mill in connection with their Improved Hatchet Double Setting Head Blocks.

They also keep on hand a full and complete assortment of Cast Steel Saws of their own manufacture, Saw Mandrills, Shingle Machines, &c.

Office No. 15 Walnut St., Cincinnati, Ohio.  
Feb. 7.] LEE & LEAVITT.

## CONKLING'S



## PATENT SCIENTIFIC BRICK.

The Subscriber offers for sale, by State and County rights, the right to manufacture and use his PATENT SCIENTIFIC BRICK.

CHARACTER OF THE BRICK.—This improvement consists in moulding and pressing Bricks in such a form as to secure the least exposure of the mortar to the weather, which seriously injures its durability and appearance, and also to provide for the greatest possible cohesion of the mortar to the brick internally, thereby securing the greatest solidity of structures.

MANUFACTURE OF THE BRICK.—The form of these Brick is adapted to all qualities and sizes of Bricks and building blocks of whatever material. They require no more skill or labor in manufacture than the ordinary form. For Mould Brick, the cavities are made only on the lower side, but deeper, by fastening two pieces of wood of suitable shape at the bottom of the mould. The top of the Brick is cut off as usual. For Pressed Brick, the cavities may be made on one or both sides, generally on one side only, leaving the upper side flat to receive a very thin layer of mortar or cement. These Bricks take from eight to ten per cent. less material than ordinary Brick.

BURNING OF THE BRICK.—These Brick are burnt in kilns as usual, but owing to the cavities the heat circulates more freely and thoroughly than in ordinary Brick, and burns the Brick more uniformly and quicker than the ordinary form. A saving of more than twenty per cent. of time and fuel is effected by this improvement.

LAYING THE BRICK.—They are laid as expeditiously as common Brick, and in the same manner, with as little mortar or cement between joints as is practicable to cement the surfaces and form a level bed for the courses, the whole to be grouted with thin mortar poured in the cavities. Walls thus made are solid and strictly fire-proof, and at least one-fourth stronger than walls of the same thickness, built of ordinary Brick.

For further information and terms of sale, address, enclosing postage stamp to pay answers,

EDGAR CONKLING.

106 West Fourth Street, Cincinnati, Ohio.

## NOTICE TO CONTRACTORS.

LOUISVILLE AND FRANKFORT RAILROAD  
SUPERINTENDENT'S OFFICE.  
Louisville, Ky., Jan. 30, 1856.

PROPOSITIONS are requested for the rebuilding of the masonry and superstructure of the Bridge across the Kentucky river at Frankfort, Ky. The superstructure will be near four hundred and fifty feet in length and the depth of water in the river near thirty feet.

Parties offering designs must accompany the same with detailed drawings.

Persons desirous of making propositions will please communicate immediately with the undersigned, at Louisville, Kentucky.

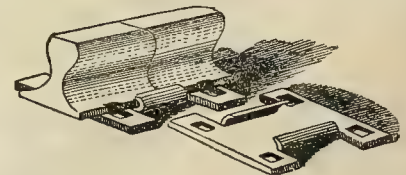
SAMUEL GILL,  
Supt L. and F. R. R.

Feb. 7-1mo.]

J. B. GREEN,

C. S. GREEN.

## CINCINNATI RAILWAY



## CHAIR WORKS,

ESTABLISHED JAN., 1852.

South Side Congress St., East of Canal,  
CINCINNATI, OHIO.

## J. B. GREEN & BRO. PROPRIETORS,

WE have in use improved machinery, capable of turning out fifty tons per week, and will contract on favorable terms, with responsible parties, to manufacture any amount of

## Wrought Iron Chairs,

which we warrant of the best quality and the most perfect fit and finish, with a smooth, level bearing on the cross ties.

Engineers, Trackmasters and Railroad men in general, will be furnished with samples by addressing a line to  
J. B. GREEN & BRO.  
Feb. 14.



# Newport Iron Works



OPPOSITE CINCINNATI, OHIO.

The above establishment is now manufacturing **Locomotive Tyre, Locomotive Car and Tender Axles, Boiler, Tank and Sheet Iron.** For all of which they are prepared to execute orders promptly and satisfactorily. They particularly solicit orders from Railroad Companies and Builders in the West, for

## LOCOMOTIVE TYRE AND AXLES,

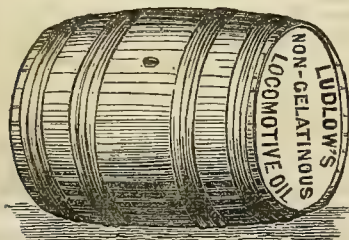
All of which are made from the Faggot, of first class material, and formed entirely under the Hammer. The Tyres are of single weld, and finish equal to any made in the country. All the manufactures of this establishment are branded "**NEWPORT**" and warranted to give satisfaction. The patronage of Customers in the West is solicited. Samples of manufacture may be seen, and orders addressed to

**A. S. WINSLOW**, 9 and 11 West Second St., Cin., or to **DANL. WOLFE**, at the Works, Newport, Ky.

JANUARY, 1856.

## W. D. LUDLOW'S

COMPOUND, NON-GELATINOUS LOCOMOTIVE



## LUBRICATING OIL.

THIS Article is a combination of Lubricating Oils, comes cheaper than any other Pure Oil. Warranted not to chill in any Climate, and is purely non-gelatinous.

Office No. 19 Front St. East of Broadway, Cincinnati, Ohio

WM. R. FEE,  
F. W. FEE,

M. GOODMAN  
F. GOODMAN.

## FEE, GOODMAN & CO.,

MANUFACTURERS OF

## NON-GELATINOUS OILS,

For Locomotive Head Lights, Machinery, &c.  
CORNER OF 3d St. & MIAMI CANAL,  
CINCINNATI, OHIO.

THE great progress made in the improvement and extension of Railroads, Steamboats, Machinery &c., has made the subject of Oils one of great importance. For several years it has claimed the attention of scientific men to investigate and experiment upon the various kinds of Vegetable and Animal Oils, in order both to supply the want of, and supersede the best article now in use, which is **Sperm Oil**, but hitherto it has been without success. We have at length, by a process discovered by ourselves, succeeded in removing the Glutinous matter from all kinds of Oils, which has been the great desideratum to be obtained, and now have made extensive preparations for the manufacture of

## COTTON SEED OIL.

This Oil is equal to, and much less expensive than Sperm; and will remain fluid at as low a temperature, and give as bright, white, and pure light, as any other pure burning Oil now in use.

We are also manufacturing a **NON-GELATINOUS LOCOMOTIVE LUBRICATING OIL**, which is pronounced by all who have used it, to be superior to any other. It is not only superior, but is cheaper, and has none of those injurious qualities, which eat and destroy machinery as the Combination Oils now in use are liable to do.

This oil is perfectly pure and non-gelatinous, and will not gum nor chill in any climate, and will wear as long as the more costly.

All we ask is, give our Oils a fair trial. We guarantee them to be such as we represent. We refer to the different railroads and printing Offices of this city, for their success.

Cincinnati, Jan. 31, 1856.

## RAILROAD MAP

OF THE  
UNITED STATES.

THE latest and best Railroad map of the United States, published for this office, is now ready and for sale at the following prices:

|                                            |        |
|--------------------------------------------|--------|
| Plain Lithograph.....                      | \$0.50 |
| Colored Boundaries.....                    | 0.75   |
| Backed with muslin and varnished ready for |        |
| moulding.....                              | 1.50   |
| Mounted.....                               | 2.00   |

Any one enclosing to us the above amount will receive a copy of the map by return mail.

T. WRIGHTSON & CO.

Publisher R. R. Record,  
167 Walnut st., Cin., O.

Jan. 31, '55]

## Railroad Printing.

WE have now attached to this office an extensive Composition and Press Room and Bindery, under the personal supervision of the proprietors of the RECORD. With confidence, therefore, we call the attention of RAILROAD OFFICERS and others to our extensive establishment, containing every facility for turning out superior work in any and every department of the PRINTING BUSINESS.

We are fully prepared to furnish Railroad and other Reports, with or without Maps or other Illustrations, gotten up at short notice and in superior style. Also, Blanks of any description, adapted to the wants of the various departments of the Railroad service, and to the wishes and tastes of the parties.

Also, Railroad Tickets and Conductors' Checks Our patent Card Press, enables us to supply a demand at Short Notice and in Unequalled Style

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With the numerous facilities for doing the Best Work, we feel no hesitancy in promising full satisfaction to all who may favor us with their orders.

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## Third St. Stock Exchange.

36 West Third Street, Cin.,

J. L. HICKMAN & CO.,

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## AUCTIONEERS AND BROKERS,

Sales Daily, at 12 o'clock A. M.

J. L. HICKMAN & Co., are prepared to make Advances negotiate Loans on Stocks, Bonds, Mortgages, business paper, and other securities.

At Private Sale, a choice variety, of Stocks, Bonds, etc.

## RAILROAD MAP OF UNITED STATES

NOW READY.

A NEW RAILROAD MAP of the United States is now ready, and for sale, by

E. MENDENHALL,  
Jan. 31, '55] 3 College Hall, Cincinnati, O.

## TEXAS

## Western Railroad Agency,

Office 73 West Third st., Cin., O.

SAMUEL A. SARGENT, AGENT.

IN answer to the numerous inquiries by letter and otherwise, as to how long the opportunity will be afforded for procuring the stock of the Company at the present limit of five per cent., and also to the inquiries for other and general information in relation to the Road and condition of the Company. I would state that there remains of the \$25,000,000 (gross amount) of Stock authorized to be issued at the five per cent. limit, less than \$8,000,000 unsold. That, in the event of its becoming necessary to issue more Stock than this amount, which will only be in case of an entire exhaustion of all the other means of the Company, and in that case it is not to be issued at any less assessment than fifty cents on the dollar, and this Stock to share equally only with the other in the dividends and profits of the road and lands.

The capital stock of the Company is divided into shares of one hundred dollars each, and each certificate contains the statement of the fact, that no further call or assessment over or beyond the five per cent. can or shall be made on the stock represented by the certificate. Certificates of stock are issued on the payment of two per cent., and the balance to make up the five per cent., is payable in instalments of half of one per cent. each, on the first Mondays of July and January each year, until January, 1859. Those paying two-and-a-half, or the whole five per cent., are entitled to interest at seven per cent. on the actual amount paid until dividends are paid from the earnings of the Road, which will be made on the whole amount or face of the certificate of stock.

The Company have donated to them by the State of Texas, 10,240 acres of land per mile, for every mile of road built, to receive their first lands (256,000 acres,) immediately upon the completion of the first twenty-five miles, and afterwards as they proceed with the work every five miles, until the whole road through Texas to El Paso, 783 miles, is completed. The lands to be selected by the Company, along the line of the road, or anywhere within a breadth of 60 miles each side of the road. It is believed these lands will be more than sufficient for the building and equipping a first class Railroad through the State. And as the stockholder has an equal interest in the lands as well as the road, a large surplus may reasonably be expected from the sale of the surplus lands.

The grading of the entire road from a point twenty miles west of Shreveport, on the eastern line of Texas where it intersects the Vicksburg and Shreveport road to El Paso on the Rio Grande, 783 miles, is now under contract to responsible and efficient contractors. The work has already been commenced and now being vigorously prosecuted with a large force. This road is located on the line of the most direct and practicable route towards California, being near the latitude of 32 deg. The estimated cost of construction for a railroad on this latitude is ascertained from actual surveys and estimates, made by order of Congress, at great expense, and published by the Secretary of War in his late report, to be far less than any of the other five different routes to the Pacific.

And the estimate of Col. A. B. Gray, who recently surveyed this route, is less than \$25,000,000 from El Paso, 821 miles, to San Diego, one of the best harbors on the Pacific Ocean. The road on this route would be entirely free from any obstructions of ice or snow the whole year. With these superior advantages, it cannot be doubted that the Pacific Railroad, which has now become an acknowledged necessity for the country, will be constructed on this route, and at an early day. When it is considered that the through business required on this road when completed, must, from necessity, far exceed any other road in this country—that it passes through a fine agricultural and grazing country—unequalled in climate—that the Illinois Central road has been built under the same system of land grants as this, with only about 1/3 the quantity of land granted to our road—that the stock of their road is now selling at from 90 to 95 cents on the dollar—it is confidently believed the net profits to the stockholders of the Texas Western Railroad Company will largely exceed those of any other Railroad Company ever chartered in the United States.

I would further state that the stock is being disposed of rapidly, and those persons who contemplate securing it at the present rates, would do well to do so at once, as they may soon find they will be obliged to pay large advances on the Company's rates.

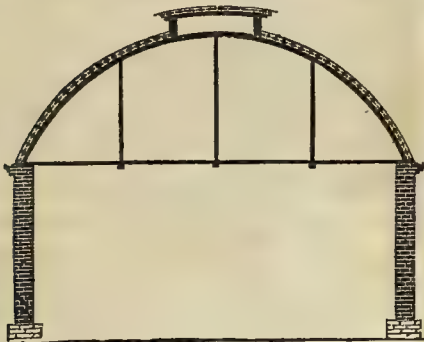
Pamphlets containing the charter of the Company and extracts from the report of the Secretary of War, upon the survey of five different routes to the Pacific, accompanied with a map, and also Col. A. B. Gray's report in full of the survey of the route, of latitude 32 deg. can be procured by application at the office.

Jan 31-Im

SAMUEL A. SARGENT.



## MOSELEY'S Tubular Wrought Iron ARCH ROOFS.



OFFICE, NO. 57, WEST THIRD ST.  
CINCINNATI, OHIO.

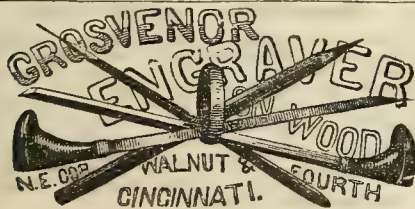
The supporting parts of these roofs are made in the same manner as Moseley's

### TUBULAR BRIDGING.

The tubes are light and of immense strength, capable of bearing twenty times more burden than will ever go upon them. Such roofs can be built in less than half the time, weigh much less, and cost less than any plan of Iron Supporting now in use, and no more than good wooden Trusses; besides, this plan of roofing gives a fine architectural appearance, is all iron, and proof against injury to walls, etc., by expansion and contraction. We are prepared to manufacture roofing, after this plan of any size and span, in any and all parts of the country, on the shortest notice.

MOSELEY, WINSTON & MOSELEY.  
THOS. W. H. MOSELEY,  
Sup. and Engineer.  
JOHN BANDON & CO  
Special Contractors

January 1st., 1856]



**BANK NOTE ENGRAVING.**  
DANFORTH, WRIGHT & Co.,  
No. 25 West Third Street, Cincinnati.  
Bank Notes, Drafts, Bills of Exchange,  
RAILROAD BONDS, & CERTIFICATES  
Engraved in a style unsurpassed.

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BANK NOTE  
ENGRAVERS AND PRINTERS.

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**RAIL ROAD, STATE, AND COUNTY BONDS,**

BILLS OF EXCHANGE, CHECKS,  
Drafts, Certificates of Stock and Deposit, Promissory Notes, Bill and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, &c., &c.

Constantly on hand, Bank Note Paper, made to order of a superior quality.

The above office is under the supervision of  
GEORGE T. JONES,  
South-East corner of Main and Fourth Sts., Cin.

## U. S. RAILROAD DIRECTORY, FOR 1856,

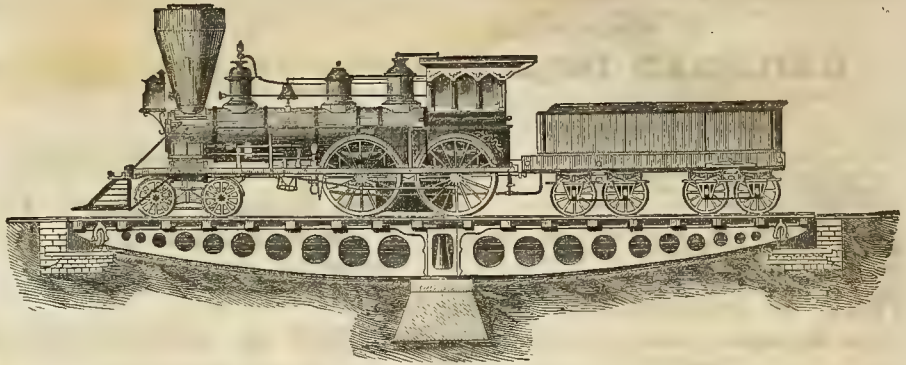
TO contain the names of the Presidents, Directors, and officers of every Railroad in the United States, as far as the same can be ascertained. Also, a general alphabetical list of the roads, and lists arranged according to States, showing their termini and length. 1 vol. 8 vo. of about 200 pages. Price, one dollar.

In press, and will be published soon. Orders may be addressed to

B. HOMANS,  
Box No. 4574, Post Office,  
New York

Jan. 31, 1855]

## William Sellers & Co. —LATE— BANCROFT & SELLERS,



16th Street and Pennsylvania Avenue, Philadelphia,

MANUFACTURE RAILWAY, TURNING and SLIDING TABLES, and PIVOT BRIDGES, upon a new and economical plan and of any required length. The Turning Tables and Pivot Bridges are fitted with Parry's Anti-Friction Box—thus enabling one man without the intervention of gearing to turn the largest table when loaded with Engine and Tender. Being of iron they are not liable to get out of order, and water within 18 inches of the track, will not impair their efficiency or durability.

### ALSO :

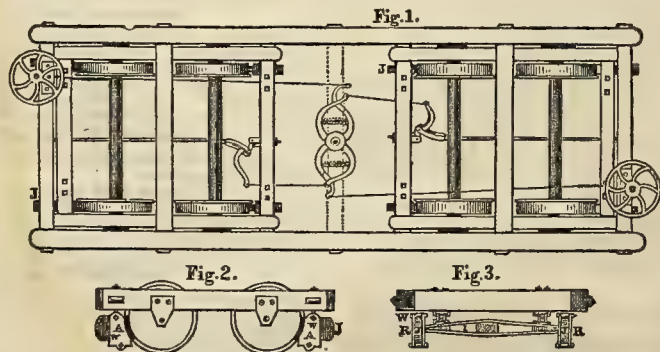
BANCROFT'S PATENT SELF-ADJUSTING HANGER and PILLOW BLOCK BEARINGS suitable for all kinds of Shafting or Mill gearing. A large supply of this article kept constantly on hand, arranged so as to attach to upright posts, suspended to the under side of beams, to rest upon foundations, or adapted especially to counter-shafts for tools, or other machinery. Cast Iron Grind Stone Boxes, fitted with this bearing and resting on wheels for convenience of moving, also kept constantly on hand. Having probably the largest stock of Pulley Patterns, in the country, they are prepared to furnish castings or finished pulleys at short notice, as, also, shafting, couplings, gear wheels, &c., suitable for all manufacturing purposes fitted up ready for use. They also continue to manufacture of their well-known class of *Engineers and Machinists' Tools*; such as Horizontal Planing machines, Vertical Planing machines, Lathes, Boring and Turning Mills, Boring Mills, Horizontal drills, Vertical drills, Bolt Cutting machines, &c.

WILLIAM SELLERS.

JOHN SELLERS, JR.

## L. PAIGE'S IMPROVED CAR BRAKE BLOCKS.

Patented January 16, 1855.



The improvement consists in attaching to each end of the brake-beam metallic sockets, (R) seen in Fig. 3. The shoes (J) are placed in the sockets, and secured therein by means of the face plates (A), which form one side of the sockets. See Figs. 2 and 3. The face plates being secured to the socket by means of screw bolts, (W) which pass through the top and bottom of the sockets and face plates. The shoes extend entirely through and out of the socket in opposite directions and may be adjusted, as they are worn, by unscrewing, and thereby loosening the face plates, by which the shoes may be shoved nearer the wheels. The face plates being secured tightly against the shoes when they are properly adjusted, and thereby firmly securing the shoes in the sockets. Thus when the old shoes are shortened by use the making of new ones is obviated, as it will be seen that by placing the shoes in sockets, they may be used until they are almost wholly worn out; whereas the ordinary shoes, by being permanently attached to the beam, (I) must be replaced by new ones, when shortened a trifle by use.

The end of the grain of the timbers of which the Shoes are formed, is placed in contact with the wheel, thus securing a large amount of friction, and obviate all liability to take fire. Should any companies prefer using the side of the grain—it being placed in a socket—they have it at their option to do so.

The attention of Railroad Companies is respectfully invited to a careful examination of this improvement, as being one of great practical importance and utility.

Paige's Adjustable Brake Company would give notice, that they are prepared to apply the improvement to one or more cars, on any road through the United States, that may wish to give it a trial. And no road will be asked to purchase the right until they have fully tested and are satisfied in regard to the merits of the invention. We are also prepared to negotiate on favorable terms for the sale of rights to any person or persons who may wish to purchase for use on one road or more.

Any communication addressed to the patentee at Cavendish, Vermont, or to the undersigned will receive prompt attention.

The Brake Blocks are in use on the following roads: Boston & Lowell, Rutland & Burlington, Cheshire Hudson River & Harlem Railroads.

J. P. DERBY, Agent, Cavendish, Vt.



## PRINTING.

**RAILROAD REPORTS, BLANKS, TIME TABLES, CONDENSED REPORTS, ETC.,** printed neatly and with dispatch, at the

**R. R. RECORD PRINTING OFFICE,**  
T. WRIGHTSON & CO.,  
167 Walnut Street, Cin., O.

## RAILROAD IRON.

The undersigned are prepared to contract for the freighting of Railroad Bars from South Wales, or other British Ports, to every place on the Western Lakes, via. Quebec.

Railroad companies will find this route much cheaper than by New York, and more expeditious.

Arrangements may be made for payment of part of the freight in bonds of a responsible company.

The iron bought on commission in England if desired.  
WALKER & BERRY, Quebec & Kingston, Canada.  
BERRY & WALKER, Liverpool, England.  
Kingston, C. W., Sept. 15, 1855.

## PERU & INDIANAPOLIS R. R.

Peru, Logansport, Wabash, Rochester, and Indianapolis.

Passenger Train leaves the Union Station at Indianapolis daily, Sunday excepted, at 1 o'clock P. M., after the arrival of the Trains from the South and East, arrive at Peru, 6.15 P. M.

Leaves Peru daily, Sundays excepted, at 6.00 A. M., for Indianapolis, connecting with Trains for the South and East.

Trains going North or South connect at Kokomo, with Trains on the Cincinnati & Chicago R. R., for Logansport, &c., without any delay of time to passengers.

Connect at Peru with Packets and Stages for Wabash, Rochester, Huntington, and all points on the Wabash and Erie Canal, North or South.

WILLIS W. WRIGHT, Superintendent.

L. N. ANDREWS, Gen. Frtght Ag't  
Indianapolis, October 1, 1855.

## COLUMBUS, PIQUA, AND INDIANA RAILROAD.



New route from Columbus, West, and from Urbana, East.

On and after Monday, September 19, 1855, two trains per day, (Sunday excepted), each way, will run on this Road, between COLUMBUS and URBANA. Will leave Columbus at 4.50 a. m., and 3.30 p. m.—arriving at Urbana at 8.12 a. m., and 6.14 p. m. Returning—will leave Urbana, for Columbus, at 9.15 a. m., and 3.00 p. m.—arriving at 12.05 and 6.55 p. m.

The 4.50 a. m. train, from Columbus, will connect with the night Express train from Cleveland and arrive at Urbana in time for the morning train north for Sandusky and intermediate points. Persons arriving by the morning Cleveland and Zanesville trains can have a few hours at Columbus and leave by the 3.30 p. m. train—arriving at Urbana in time to get supper, and take the 5.35 p. m. train for Dayton and Cincinnati.

The 9.15 a. m. train from Urbana, connects with the morning train from Cincinnati and Dayton that arrives at Urbana 8.40 a. m.—arriving at Columbus at 12.05 p. m. in time for the 1 p. m. train for Cleveland, connecting with the Buffalo and Dunkirk boats. The 3.00 p. m. train will leave Urbana on the arrival of the Sandusky train—reaching Urbana at 2.45 p. m.—and arrive in Columbus in time for the various night trains.

A line of Omnibuses will connect with the trains at Urbana for the conveyance of passengers to and from Piqua and Greenville over a good Macadamized road.

A. G. CONOVER, Superintendent.

Piqua, Sept. 13, 1855. Sept. 29. tf.

## Terre Haute & Richmond R. R.



### Summer Arrangement.

TWO TRAINS DAILY, (SUNDAYS EXCEPTED). Indianapolis to Terre Haute, Vincennes, St. Louis and Evansville.

EXPRESS TRAIN leaves Indianapolis at 9.15 A. M., arrives at Terre Haute at 11.55 A. M., connecting with the 12.30 P. M. Train of the Evansville and Crawfordsville Railroad; arrive at Evansville at 6 P. M. Steamboats leave Evansville daily for the various places on the Ohio and Mississippi rivers.

Passengers for St. Louis, leaves Vincennes by Stage at 3.30 P. M., connecting with the Trains of the Ohio and Mississippi Railroad, arrive at St. Louis at 1.30 P. M. Time from Indianapolis to St. Louis 28½ hours. Fare \$10.40.

MAIL TRAIN leaves Indianapolis at 1.10 P. M., arrives at Terre Haute at 4.45 A. M.

### TERRE HAUTE TO INDIANAPOLIS.

MAIL TRAIN leaves Terre Haute at 7.10 A. M., arrives at Indianapolis at 10.42 A. M.

EXPRESS TRAIN leaves Terre Haute at 12.30 P. M., arrives at Indianapolis at 3.15 P. M., connecting with the afternoon trains for Cleveland, Cincinnati and the East. Mail Train stops at all way stations, Express Train only at Greencastle.

May 28, 1855. S. HUESTIS Superintendent.

## 1855 FALL ARRANGEMENTS. 1855

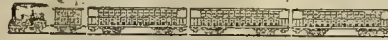
FOR THE

## EAST, NORTH AND WEST.

To Take Effect Monday, Nov. 19th.

THE BEST AND QUICKEST RUN ROADS  
IN OHIO.

Time as short to the Eastern Cities, as well as  
to Chicago and St. Louis, and Fare as  
Low as by any other Routes.



## Great Miami, [C. H. & D.]

MAD RIVER AND LAKE ERIE,

CLEVELAND & TOLEDO,

AND

## EATON & RICHMOND

RAILROADS.

TRAINS LEAVE THE SIXTH STREET DEPOT as follows:

### FIRST TRAIN.

Lightning Express, at 6.00 o'clock A. M., for Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore, and Washington City, and at Clyde for Toledo, Chicago, and Cleveland—Same train connects at Dayton for Greenville, Union, &c., and at Forest for Lima, Delphos and Fort Wayne. This is the only direct route to the above places.

Passengers for the East take the cars of the Cleveland and Toledo road at Clyde, go into the same depot and make the same connections as by the Columbus route. As the Lake Shore roads depends more upon the trains from the West for their travel, and as this train makes sure connection at Clyde, passengers are less liable to miss the connection at Cleveland than by any other route.

(This train starts by Columbus time which is seven minutes faster than Cincinnati.)

Passengers by this train breakfast at Cincinnati and dine the following day in New York, Philadelphia, Baltimore or Washington City.

Connections sure. But one change of passenger cars between Cincinnati and Cleveland. Ample time for meals. Baggage checked through to Cleveland, Dunkirk, Buffalo and Pittsburgh.

### SECOND TRAIN.

Indianapolis Express, at 5 A. M., for Indianapolis, and all points North and West.

(This train also starts by Columbus time.)

### THIRD TRAIN.

Cleveland and Pittsburgh Accommodation at 8 A. M., for Cleveland, New York and Boston. Connects at Forest and Bellefontaine for Pittsburgh, Philadelphia, Baltimore, &c.; at Sandusky, with Cleveland and Toledo train for Chicago, and at Dayton with train for Troy, and Piqua, also to Greenville, Union, &c.

### FOURTH TRAIN

Hamilton Accommodation at 11.00 A. M. for Hamilton and all way stations.

### FIFTH TRAIN.

Indianapolis and Dayton Accommodation at 2.30 P. M.; connects at Dayton for Piqua, and at Hamilton for Richmond, Indianapolis and Chicago.

### SIXTH TRAIN.

Night Express at 5 P. M. for Sandusky and way stations, Cleveland, Dunkirk, Buffalo, New York and Boston; connects at Bellefontaine for Pittsburgh, Philadelphia, Baltimore and New York.

RETURNING.—Trains leave Dayton as follows: at 5.15 and 7.45 A. M., 3.45 and 7.25 P. M.

TRAINS LEAVE RICHMOND at 7.00 and 10.30 A. M., and 6.40 P. M.

TRAINS LEAVE HAMILTON at 5.54, 6.40 and 9.00 A. M., and 2.30, 4.49 and 8.30 P. M.

For Tickets, apply at the Ticket Offices, corner of Front and Broadway, under the Spencer House; or on Walnut street, next door to the Gibson House; or at the Sixth Street depot, or of Col. Wm. A. Latham, General Ticket Agent, South-East corner of Fourth and Vine streets.

H. O. AMES, Sup't. C. H. & D. R. R.

E. F. OSBORN, Sup't. M. R. & L. E. R. R.

E. B. PHILLIPS, Sup't. C. & T. R. R.

D. M. MORROW, Sup't. E. & R. R. R.

The Omnibus Line will call for passengers by leaving their names at the Offices.

## Railroad Iron,

1,500 TONS, now at New Orleans, approved T Pattern, weighing 61 pounds per lineal yard, for sale by VOSE, LIVINGSTON & CO., 9 South William street. 8. 1m

New York, Aug. 16th, 1855.

## Cincinnati to Indianapolis,

St. Louis, Chicago, Galena & Rock Island,

BY THE WAY OF THE

CINCINNATI, HAMILTON & DAYTON,

AND EATON & HAMILTON R. R.

TO CHICAGO, in.....15 HOURS.

TO ST. LOUIS, in.....31 HOURS.

Passengers will find this the most pleasant route of any in the West, as it passes through the richest and most thickly settled portion of the State of Indiana. In taking this route, passengers will reach Terre Haute, Lafayette, Peru, Michigan City, Chicago, Rock Island, Galena and St. Louis, as soon as any other leaving Cincinnati, and with but little fatigue, in consequence of the superior manner in which the roads are constructed and managed.

THROUGH BY DAYLIGHT TO TERRE HAUTE,

LA FAYETTE, PERU, &c.

On Monday, June 18th, 1855, Passenger Trains will leave the Sixth Street Depot as follows:

FIRST TRAIN—Chicago Day Express—at 5.30 A. M., to Richmond, Indianapolis, Lafayette, Michigan City, Chicago, Galena, Rock Island and St. Louis; connecting at Indianapolis for Peru, Terre Haute, &c.

SECOND TRAIN—Indianapolis and Chicago Evening Express—at 2.30 P. M., for Richmond and Indianapolis, making direct connection at Indianapolis with Night Express for Lafayette, Michigan City and Chicago, arriving at Chicago in time for early Morning Trains for Galena, Rock Island and St. Louis.

THIRD TRAIN—Richmond and Indianapolis Accommodation—at 5.00 P. M., for Richmond, Indianapolis and intermediate stations; resuming by early Morning Trains at Indianapolis, to Terre Haute, Vincennes, Evansville and St. Louis, direct.

Fare to Indianapolis.....\$3 50

" Lafayette.....5 50

" Terre Haute.....5 75

For through tickets and information, please apply at the General Railroad Ticket Office, No. 169 Walnut St., or to W. A. LATHAM, at Cincinnati, Hamilton and Dayton Railroad Office, corner of Broadway and Front streets, under the Spencer House, or at the Sixth Street Depot.

M. L. MITCHELL, Agent.

The Omnibus Line, will call for passengers by leaving their orders at the offices.

WM H. SMITH, Conductor.

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## Myers' Patent Cylindrical Car.

NOTICE.—The Subscriber having become proprietor of MYERS' PATENT CYLINDRICAL CAR, for a considerable portion of Western territory, including the State of Ohio, offers the same to Rail Road Companies on favorable terms. The public will be furnished with in a short time with complete explanations of its operation, together with the results of actual experiments testing its applicability to all the uses for which it is recommended.

W. CLOUGH.

South-western Car Works.

Madison, Indiana, May 11.

## GEO. D. WINCHELL & BRO.,

172 Elm Street, between 4th & 5th,

CINCINNATI, O.,

Sole Manufacturers of McGowan's Double Action

## SUCTION & FORCE PUMP

AND

## Compound Steam Pumping Engine,



WOULD respectfully invite the attention of RAILROAD Companies, Manufacturers, Distillers, Miners, and the public generally to these Pumps, as the best Pump now in use, and acknowledged by all who have used them to be perfect—are simple in their construction, compact, durable and not likely to get out of order; well adapted for Steamboats, Railroad Water Stations, Distilleries, Breweries, Furnaces, Mines, Rolling Mills, Paper Mills, Factories, Wells, Cisterns, Stationary Fire Engines, Garden Engines and for all purposes where a Pump can be used. Also, for forcing a large body of water to a great height or distance rapidly.

Also, McGowan's Patent Ball Valve Pump, designed for Hot Liquids, Hot Oils, Molasses, &c. Hose Couplings, Lead, Copper and Gas Pipe furnished at the lowest market prices.

Full and perfect satisfaction guaranteed in all cases, when properly put up according to directions.

Orders thankfully received and promptly filled at the shortest notice.

SILVER MEDAL. (The highest prize) awarded to these pumps and Steam Pumping Engine at the late Fair of Ohio Mechanics' Institute. June 18, 1855—1y























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